

**ASSESSMENT OF AVAILABILITY AND IMPLEMENTATION OF SAFETY
PRECAUTIONS IN PUBLIC AND PRIVATE DAY-CARE CENTERS IN GOMBE
STATE, NIGERIA**

BY

RUKAYYATU ABDULKADIR UMAR,

**DEPARTMENT OF HOME ECONOMICS,
FACULTY OF EDUCATION
AHMADU BELLO UNIVERSITY,
ZARIA, NIGERIA**

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**Rukayyatu Abdulkadir UMAR,
B. Ed Home Economics (A.B.U. ZARIA, 1997)
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SEPTEMBER, 2017

DECLARATION

I declare that the work in this dissertation entitled **Assessment of Availability and Implementation of Safety Precaution in Public Private Day-Care in Gombe State Nigeria** has been carried out by me in the Department of Home Economics. The information derived from the literature has been duly acknowledged in the text and list of references provided. No part of this thesis was previously presented for another degree or diploma at any University.

Rukayyatu Abdulkadir UMAR

Date

CERTIFICATION

This dissertation entitled **Assessment of Availability and Implementation of Safety Precaution in Public and Private Day-Care Centers in Gombe State, Nigeria** by Rukayyatu Abdulkadir UMAR, meets the regulations governing the award of Master of Education (M. Ed) degree in Home Economics of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

Prof. A. Z Mohammed
Chairman, Supervisory Committee

Date

Prof. E.E Adamu
Member supervisory committee

Date

Prof. E.E Adamu
Head of Department

Date

Prof. S. Z. Abubakar
Dean School of Postgraduate Studies
Ahmadu Bello University, Zaria

Date

DEDICATION

This research work is dedicated to Almighty Allah the creator of the universe and to my beloved father Mr. Z. Umaru (Late).

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ABSTRACT

The purpose of this study was to assess the availability and implementation of safety precautions in day-care centers in Gombe State, Nigeria. Six objectives, five research questions and three null hypotheses were formulated as guide to the study. Among the objectives was to identify safety measures at the day-care centers. Descriptive survey research design was adopted for the study. The population of the study was 880 day-care givers in 340 day-care centers registered under Gombe state Universal Basic Education Board (SUBEB). The sample size used for the study was 240. Checklist and semi structured questionnaire were used for data collection. Research questions were answered using mean and standard deviation and null hypotheses were tested using t-test and PPMC statistics at 0.05 level of significance. The result revealed amongst others that good toilet system, spacious and ventilated classrooms accident free environment are among the available safety precautions and a significant difference exist between the safety measures in public and private day-care centers. Significant relationship exists between availability of safety precaution and adequacy of safety precaution in day-care centers. Based on the findings it was concluded that child safety precaution measures are adequately available in good condition and well implemented in public and private day-care centres. The implication of this finding is that children would have good care and safety during the day time while their parents are in work place. It was recommended amongst others that Gombe State Ministry of Education should make provision of adequate security and fencing of public day care centers and the Ministry of Education should make it mandatory for all private day care proprietors to conform to Health Safety and Environmental Standard (HSE) as this will provide proper safety and mutual respect amongst pupils in public and private day care centers in Gombe State.

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LIST OF ABBREVIATIONS

ECCE:	Early Child Care Education
EFA:	Education for All
ECED:	Early Child Development Education
DCC:	Day Care Centres
FRN:	Federal Republic of Nigeria
MDGs:	Millennium Development Goals
UBE:	Universal Basic Education
UNESCO:	United Nation Educational Social Cultural Organization
UNLD:	United National Literacy Decade

OPERATIONAL DEFINITION OF TERMS

Safety: This refers to freedom from danger or protection from harm or injury. In a Day-Care system, safety is seen as measures taken to avert danger and make children feel safe from harm while away to schools.

Safety Precaution: safety precaution is the ability to take safety measure before hand and the necessary action before any harm or damage happen.

Day care centers (DCCs): is the care given to a child during the day by a person other than the child's parent or legal guardian, typically someone outside the child's immediate family.

Early Child Care Education: Is a wide range of programe all aimed at physical, cognitive, psychological and social development of children before entering primary education.

Implementation: this means the compliance to certain standard. Thus, the implementation of safety precaution means the compliance to certain standard by day care providers.

Assessment: is an appraisal or evaluation of services or programme.

Checklist is a list of behaviours, characteristics, or other entities that a researcher is investigating. Either the researcher or participants (depending on the study) simply check(s) whether each item on the list is observed, present, or true; or else *not* observed, present, or true

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

All children have the right to be safe at home, at school and in their child care centers. Safe environments are essential for preventing injury, enabling children to grow, develop and feel safe in their learning environment. In line with the global trend, as enshrined in Obasi and Asodike (2005), the white-collar jobs and the wage earning systems that are the features of modern societies are known to keep parents away from home most part of the day. The Nigerian women need to work to meet up with the present harsh economic realities, hence, they send their children to day-care centres where they can be taken care of while the mothers are at work. This has brought about the increase in demand for supplementary care and schools with parents sometimes not minding the cost. After this talk about what the day-care centre is, it was not fully revealed whether the various type of the centres in Gombe state are fulfilling their roles hence the need for assessment to ascertain if the goals are being met.

The United States Department of Health (2008) specifically defines a Child Day-Care Center as a program of supplementary care for more than twelve (12) years related or unrelated to children outside their own homes on a regular basis. The implementation of the National Policy on Education (Federal Republic of Nigeria, [FRN] 2004), and its subsequent provision in the Universal Basic Education (1999) and implementation of the UBE Act (2004) on early childhood education in the country will not only increased the awareness but also made it available to every willing Nigerian to access Day-Care services. Day-Care Center (DCC) is the care given to a child during the day by a person other than the child's parent or legal guardian, typically someone outside the child's immediate family. Thus, this informed the choice of the researcher to

undertake a study to assess the availability and the implementation of safety precaution in Public and Private Day-Care Centres, which on its own is a measure of quality in child care services.

Encarta (2009) defines safety as freedom from danger or protection from harm or injury. Child-care safety concentrates on protecting young children from hazards and diseases in pre-school settings. In a Day-Care system, safety is seen as measures taken to avert danger and make children feel safe from harm while away to schools. Stephen (2003) points out that safety precaution is the ability to take safety measure before hand and the necessary action before any harm or damage happen. Orebayo (2001) contends that the importance of safety in Day-care center should be of prime importance to the centre since children are by nature unique, enthusiastic and full of energy. Hence a good Day-care centre must anticipate threat to their safety and take precautionary measures.

Giving the importance of Day – Care System to the overall development of the child, the 1999 African International Conference in Kampala organized by the World Bank, with the objective of raising public awareness and advocate for Day – Care and Early Child Care Education (ECCE), emphasizes on the safety of the children as a measure to quality child care and education. It is in response to these international commitments and with many case studies and innovations reported by international organizations like United Nations Educational and Cultural Organization (UNESCO) and UNICEF that the Federal Government of Nigeria through series of recommendations evolved aNational minimum standard on day-care centers in Nigeria. The guidelines for the smooth running of day-care centres place a lot of emphases on the safety of the children, giving the components of safety in Day-Care Centers as follows:

- i. Supervision

- ii. First aid
- iii. Communication
- iv. Hazard prevention and Maintenance

On a general note, the NERDC (n.d) emphasizes that the location of a day-care Centre should be in safe and secured environment (free from chemical and other hazards). Specifically, NERDC (n.d) also prescribes that the school premises particularly the play ground should be fenced to prevent outside interference. Also, nets should be provided on the windows and doors for the safety of the children.

There are a lot of prevailing situation which affect the implementation of safety precaution in centers, many were found not providing a perfect safe child care setting for children especially from the physical aspect such as washroom, bedroom and playground. There is therefore, the need for this study to assess the implementation of safety precaution at the Day-Care Centers in Gombe State.

Implementation of safety precaution is given priority in the ECCE curriculum. This is because children need to be safe for optimum and overall development. Where the safety of the child is threatened, the child cannot grow into a healthy individual. Similarly, parents have the responsibility of ensuring that their children are placed in a safe environment while they pursue their daily chores. The demand for Child Day-Care services and education has become more desirable as parents continue to seek safe and affordable places to leave their children while at work. The question then is – to what extent is the safety practices observed in these schools where these kids are sent for safekeeping during this formative age when they learn basic habits, which last them a lifetime and mark the direction of their behaviour? In Gombe state, there are many categories of Day-cares Centers, such as privately owned Day-care, faith-linked Child-care, Mosque-linked Child-care, Government Child-care centre, Organizational-

linked Child-care, Cooperative Child-care and Employer-sponsored Child-care centers. The study therefore looked into registered Day-care centers in Gombe state. While there are numerous areas of concern on child safety in Day-care centers, the study also assess safety precaution practices in the environment where our children are kept for the most part of the day by considering the availability, adequacy, maintenance of facilities and simple hygiene practices based on the following identified components of Day-care education:

- a. Physical Environment,
- b. School Hygiene Facilities and Practices
- c. Recreational Facilities and their maintenance
- d. Utility – Water, Light,
- e. Transportation and Communication, and
- f. Care giver's Personality

Therefore, the focus of this study is to assess whether or not day-care safety precautions are available and fully implemented in public and private day-care centres in Gombe State.

1.2 Statement of the Problem

The right of children to safety be it at home or in the school and the need to provide adequate care, safety and supervision for children while their parents are not at home is well known. The need also to inculcate rudiments of numbers, letters, colours and shapes led to the recognition of pre-primary education in Nigeria. This is in commitment to a wide range of global frameworks and other normative instruments, which include Education for All (EFA), United Nations' Millennium Development Goals (MDGs), United Nations' Literacy Decade (UNLD) amongst others. These commitments led to the development and adoption of the National Early Child Care Minimum Standards for ECCE Centers and the Integrated Early Childhood Curriculum for 0-5 years in the year 2004. These policies were as a result of collaborative efforts between Federal Government of Nigeria through Nigeria Educational Research and Development Council (NERDC) and United Nations International Children's Emergency Fund (UNICEF).

These policies prescribe minimum guidelines for the operation of Day-care centers with regards to safety measures, staffing, facilities, location, health and nutritional requirements among others. It is however, unfortunate that there seems to be fewer researches on the implementation of safety precaution in day-care centers, which on its own is a measure of quality of every Day-care service. We must however, note that the effect of safety practices observed and practised in the Day-care centers where children are most importantly the future leaders of the country. Educational provisions at this level serve the need of children from different types of homes. Contemporarily, it is required that Day-care centers should ensure the safety and success of all children and the professionals who serve them (Hurwitze, Manacker and Welden, 1996). It also requires that school personnel's have a corresponding duty to provide children with

safe, secure, and peaceful environment in which learning can occur (Kostelnik, & Sanderman, 1998).

Parents in Gombe State take their children to day care centers and found that their children are not properly taken care of. This was envisaged in the manner in which the day care centers take care of the children as some of the day care centers lack some facilities and in day-care centers where the facilities are available, they are inadequate and not properly used in taking care of the children. Despite the availability of facilities in some day-care centres some parents are complaining that the needed safety children required is fully given, this is what prompted the researcher to assess the availability and implementation of safety precaution at Day-care centers in Gombe state in line with set standards.

1.3 Objectives of the Study

The general objective of the study is to assess the implementation of safety precaution for children at the Day-Care Centers in Gombe state. Specifically, the study seeks to:

- i. Identify child safety measures in the Public and Private Day-care centers in Gombe State;
- ii. Assess care givers' opinions on the present condition of safety precaution measures at the Day-Care Centers in Gombe State;
- iii. Examine care givers' opinions on the availability of safety precaution measures at the Day-Care Centers;
- iv. Examine care givers' opinions on the adequacy of safety precaution measures at the Day-Care Centers;

- v. Determine the relationship between the educational qualification of proprietors of the Day-care centers and the safety precaution put in place;
- vi. Compare the utilization of safety precaution by public and private Day-care centers in Gombe State;

1.4 Research Questions

This study attempt to provide answers to the following research questions:

- i. What are the child safety measures in the Public and Private Day-Care Centers in Gombe State?
- ii. What are the care givers' opinion on the present condition of safety precaution measures at the Day-Care Centers in Gombe State?
- iii. What are the care givers' opinions of the availability of safety precaution measures at the Day-Care Centers?
- iv. What are the care givers' opinions of the adequacy of safety precaution measures at the Day-Care Centers?
- v. What extent does the educational attainment of proprietors of the Day-care centers influence the implementation of safety precaution in Day-care centers?
- vi. What is the extent of utilization of safety precaution by public and private Day-care centers in Gombe State?

1.5 Research Hypotheses

The following null hypotheses are postulated to further enable the researcher arrive at meaningful conclusion.

H₀₁: There is no significant difference between the child safety measures in public and private day-care centres in Gombe State.

H₀₂: There is no significant relationship between availability and implementation of safety precaution in Day-care centers.

H₀₃: There is no significant difference in the utilization of safety precaution between public and private Day-care centers in Gombe State.

1.6 Significance of the Study

The beneficiaries of this study are child-care providers and operators, Parent Teachers Association (PTA), teachers, government and Consumer Science Education students.

The findings of the study will create awareness to any Child-care providers and operators as it will give them a balanced view of what the parents expect from Day-care centers, in terms of safety of their children before making their choice of center.

The findings of this study if made available or discussed during the Parent Teachers Association (PTA) will give an insight into the safety precautions being taken by the daycare givers to the children.

The study will also give the government at all levels and the public more insight into what to expect from any child-care provider and operator in respect of safety precautions. It will also trigger Gombe state government to conduct a regular supervision of Day-care centers in the state.

The findings of the study will be useful to both Consumer Science Education students and teachers, who will be interested in operating a private owned Day-care center. The study will also serve as a guide or rather a hand book to successfully operate day-care centers.

1.7 Basic Assumptions of the Study

1. Parents are not satisfied with the present condition of safety measure put in place in the day-care centers in Gombe State.
2. Day-Care providers are aware of the safety guidelines that must be adhered to.
3. Government at all levels has not adequately addressed the issue of licensing of the Day-care centers.
4. Parents and day-care givers are considered to be the reliable respondents for the study.

1.8 Delimitation

The study is delimited to availability and implementation of day-care safety precautions. The study is also delimited to private and public day-care centres in Gombe state. The study is also delimited to child care givers and parents of children. The study is delimited to availability and implementation of day-care safety precautions because it is only when the needed facilities required for safety precautions are available that implementation will take its course. It was also delimited to categories of Day-cares Centers, such as privately owned Day-care, faith-linked Child-care, Mosque-linked Child-care, Government Child-care centre, Organizational-linked Child-care, Cooperative Child-care and Employer-sponsored Child-care centers because they are the avenue of taking care of children while their mothers are in work places. The study was also delimited to care-givers because they are the ones taking care and giving safety precautions to children. The study was also delimited to parents because they are the ones taking children to the centres.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter reviews literature on the following subheadings:

- 2.1 Theoretical Framework
 - 2.1.1 Theory of Behaviorism
 - 2.1.2 Social Cognitive Theory
 - 2.1.3 Piaget Cognitive Development Theory
- 2.2 Day-Care Education in Nigeria
- 2.3 Roles of Stakeholders in Day-Care Provision
- 2.4 Implementation of Safety Precaution Policy
- 2.5 Importance of Child Safety in Day Care Centers
- 2.6 Prevention of Child Injury in Day Care Centers
- 2.7 Availability of Safety Devices
- 2.8 Review of Empirical Studies
- 2.9 Summary of Literature Review

2.1 Theoretical Framework

Theories have general functions which is the provision of general explanation of phenomena. Theories are to guide actions, for they provide basis for our classroom interactions. The theories under review here can be applied appropriately for the provision of early childhood education.

2.1.1 Theory of Behaviourism

This research study hinged on the theory of Behaviourism propounded by Sidney Bijou and Donald (1959) The theory of Behaviourism in which they illustrated in details

on how traditional behaviour can account for the changes observable in children at every level of growth and development. They identified three of such levels as:

- Universal
- Basic
- Societal

Universal: this explains that the universal level starts from prenatal stage until symbolic behaviour becomes prominent at two. At this stage infants interact with the environment and thus are influenced by the consequences of their actions, the greater determinant of their behaviour at this stage is their maturing biological nature. This means that the environmental stimuli significantly influence the life of an infant at this stage. The causes of similarities of the human species are the focus of attention in infancy.

Basic: The basic stage of development covers the years between two and six. At this stage, the child's biological development is sufficiently matured to meet her basic needs. This means, the child is now ready to interact with the environment and can devote more energy to developing psycho-social behaviors. The child's pattern of growth during this preschool years depend largely on the sort of social environment of the child's family provides, although parts of the child's characteristics is determined by genetic factors.

Societal: The stage of development begins at the time the child enters formal schooling and continues throughout the child's school life. At this stage a myriad of influences from the school culture serve to alter and expand the basic pattern of action and personality structure that was formed by biological structure and the maturing practices of the child's family.

The basic tenets of this theory account for (a) the strengthening or weakening of relationships between the child and his environment, (b) changes in abilities and skills,

(c) a child's pattern of remembering and forgetting, (d) the transfer of situation of learning from one situation to another, and (e) motivation, emotion and conflict.

Bijou and Baer's theory of behaviorism becomes pertinent in ECCE provision as the tenets emphasize child's upbringing and determining factors surrounding the process. Factors like transfer of learning, motivation, remembering and forgetting must be emphasized if the provision of ECCE must be functional and effective.

2.1.2 Social Cognitive Theory

Albert Bandura, a psychologist in 1962 founded the social cognitive theory, which emphasizes the role of observational learning and social experience in the development of personality. According to Bandura's theory, people with high self-efficacy that is, those who believe they can perform well are more likely to view difficult tasks as something to be mastered rather than something to be avoided.

Self-efficacy is one's self-judgment of personal capabilities to initiate and successfully perform specified tasks at designated levels, expend greater effort, and persevere in the face of adversity and diversity. In other words, teacher's self-efficacy has been defined as the conviction that one can successfully bring about the desired instructional behavior or change in one's students. Although, self-efficacy is examined with much greater depth in therapeutic contexts, it holds significant power for predicting and explaining academic performance in various domains. Academic domains in which perceived self-efficacy receives considerable attention include specific situations of technological/computer literacy, writing, teacher preparation, and mathematics learning. This is co-relational and it describes how self-efficacy relates to academic outcomes. Additionally, while self-efficacy is domain-specific, it is also task and situation-specific; that is, percepts of efficacy pertain to critical tasks and situations

in which they are studied (Centre for Positive Practices, 2005). This perspective enables teachers/researchers to gain a deeper understanding of the interactive relationship between self-efficacy and performance. Self-efficacy is therefore, a phenomenon which essentially aims at explaining how personalization and modeling are used to enhance the capabilities of human learning.

Bandura also contends that children do not come to terms with a new behavior before it is reinforced but rather children new behavior is acquired by observation of models in their real environment (Murray, 2005). For a strange behavior being demonstrated by a child without observation, Bandura refers to such novel acts as *accidental*. For Bandura to conclude that children learn via observation and imitation mostly, he set up two different experimental groups to confirm. In group A, they treated the toy given to them with kindness while the group B treated theirs with cruelty. Meanwhile, the children only sat down and were watching what was done by their groups. At the end the children were mixed up and given a similar toy to play with and Bandura observed that children from group A treated their toy with love and kindness while those in group B treated theirs with cruelty. Bandura therefore, observed that the behavior exhibited by the children was a direct reflection of their group treatment of the toys and concluded that learning takes place through observation and imitation (Obinaju, 2004).

Accordingly, the process of learning, Bandura classifies it into five main functions: (a) paying attention (b) coding for memory (c) retaining in memory (d) carrying out motor actions, and (e) motivation which the first four steps require (Murray, 2005).

The implication of Bandura's social-cognitive theory to ECCE is that, when children observe a model, they must attend to the pertinent clues in the stimulus

situation, therefore ECCE teachers and parents alike must be aware that they constitute a model to his children in schools and models for them at home respectively.

2.1.3 Piaget's Cognitive Development Theory

Another theory which this study is premised on is Piaget's Cognitive Development Theory. This was founded by Jean Piaget in 1963 (Murray, 2005). In his theory, Piaget puts forward four basic stages through which the child passes through before s/he is considered intellectually fully developed. Obinaju (2004) explains these stages as:

- **The Sensory Motor Stage:** This period span from birth to two years in which infants acquire understanding of the world around them through sensory impressions of their immediate environment. During this stage infants also through the use of motor activities explore their environment as well.
- **The Pre-operational Stage:** This stage starts from 2-7 years during which the child masters and the use of words to represent objects. The child at this stage may not be able to be engaged in abstract thoughts or tasks.
- **Concrete Operational Stage:** This stage starts from 7-11 years. At this stage, most of things the child learns are acquired through experimentation. This does not engage in abstraction but starts acquiring knowledge through conservation and decentration provided the experiments are concretized. This means that once the child masters an operation s/he can reverse it without going through the process again.
- **Formal Operational Stage:** This stage starts from 11 years and above. This is the stage at which all children acquire experiences such that they can engage mental thought processes and manipulations. At this stage child are also able to

involve abstract thinking and generalization of solution from one situation to another by formulating hypotheses and systematically seeking for solution to the problem.

This theory is paramount in the day care delivery because it is incumbent on the teacher, the school and indeed the society to present only worthwhile experiences to the child.

The above discussed theories gives an insight into the various ways in which they can assist day care givers in Gombe State on how to fashion out the provision of facilities and safety precautions in their daycare centres. The theories also provide a basic principle to teachers of this pre-school children, for these theories provide guidelines on how teachers and daycare givers can deal with these children. These theories also provide a good basis for which this study can be conducted successfully on how to put harm out of the way of these younger ones.

2.2 Day-Care Education in Nigeria

The latest edition of the *National Policy on Education* (Federal Republic of Nigeria (FRN), 2004) christened early childhood education as pre-primary education and defined it as the education given in an educational institution to children aged three to five plus prior to their entering the primary school. While, US Department of Health (2008) specifically defines a Child Day-Care Center as a program of supplementary care for more than twelve (12) related or unrelated children outside their own homes on a regular basis. Meanwhile, the *National Policy on Education* also outlined the purpose of pre-primary education to include the following amongst others:

- i. Providing a smooth transition from the home to the school;
- ii. Preparing the child for the primary level of education;

- iii. Providing adequate care and supervision for the children while their parents are at work;
- iv. Inculcating in the child the spirit of enquiry and creativity through the exploration of nature, and the local environment, playing with toys, artistic and musical activities etc;
- v. Teaching the rudiments of numbers, letters, colors, shapes forms, etc. through play, and
- vi. Inculcating social norms.

The document also outlined a number of measures to be taken by government to ensure the achievement of the objectives of pre-primary education. These include:

- a. encouraging private efforts in the provision of pre-primary education;
- b. making provision in Teacher Training institutions for production of specialist teachers in pre-primary education;
- c. ensuring that the medium of instruction will be principally the mother-tongue or the language of the local community;
- d. ensuring that the main method of teaching in pre-primary institutions will be through play;
- e. regulating and controlling the operation of pre-primary education, ensuring adequate training of staff and provision of essential equipment.

In addition to these measures, appropriate levels of Government (State and Local) are required to establish and enforce educational laws that will ensure that established pre-primary schools are well-run, pre-primary teachers well qualified, and other appropriate academic infrastructure provided. Ministries of education are expected to ensure maintenance of high quality standards.

Meanwhile, different categories of pre-school fall under pre-primary education amongst such as outline by Ikwuegbu (2006) are:

- i. **Day-Care Centers (DCC):** These are centers that are organized to ensure toiletry habits and good conducts. The DCCs are meant to cater for children who are aged 6 months-2years old.
- ii. **The Play Group:** This is another type of ECCE. It is meant for children aged between 2 and 3years. Children here are taught intellectual skills of reading of alphabets, rhymes, poems and play with toys as well as the development of language skills in addition to the development of numeracy. They are also taught to be of good conduct.
- iii. **The Kindergarten:** This is a school for five years old children. It serves as a transition class to primary school at the age of six. Kindergarten offers pre-academic skills of learning letters, numbers, shapes and forms. This level of schooling is seen as an integral part of primary school even where there is no nursery section. In such institutions, children at the age of 5 are admitted into Kindergarten class and on completion enroll into primary I. Maduewesi (1997) outlines its function to include the following among others:
 - a. friendliness and helpfulness in relationship with others
 - b. responsiveness to the intellectual development
 - c. achievement of good sensory motor coordination
 - d. great power to solve problems based on individual activities and group relationship.
- iv. **The Nursery School:** This is the most common form of pre-primary education today. It is an upward extension of the home which its purpose is to foster or see to the total development of children. The nursery school typically caters for

children aged 3-5 years. Its program should consist of activities which can stimulate social interaction as well intellectual development. Nursery schools provide a pleasant learning environment and well equipped facilities with the aim to encourage the child to enjoy the facilities while being guided to develop basic social physical or mental skills (Maduewesi, 1997).

- v. **Practicing Schools:** In most cases institutions of learning like Colleges of Education and Universities set up practicing schools to enable students to observe practice and research on students' behavior and learning as if in a laboratory. It is also referred to as **Demonstration School**. Even though practicing schools are over-used, the children in such schools gain from the exposure as a result of varying instructional approaches and enriched equipment.
 - a. **Nanny** - employed by the family on either a live-in or live-out basis to undertake all tasks related to the care of children. Duties are generally restricted to child care and the domestic tasks related to child care. May or may not have had any formal training though often has a good deal of actual experience. A nanny's working week ranges from forty to sixty hours per week.
 - b. **Nanny Sharing** – employed by two families in the same capacity as a Nanny undertaking tasks related to the care of children. If you are interested in having a nanny care for your child but are reluctant due to the expense, nanny sharing with another family maybe the solution.
 - c. **Mother's Help** - a mother's help has little or no previous experience of caring for children. They generally have career aspirations in the field of child care and this is one way of gaining experience whilst undertaking formal study. A mother's help will assist the parent(s) with childcare and housekeeping duties.

These duties should be carried out under the supervision of the parent (Ikwuegbu, 2006)..

- d. **Babysitter** - provides supervisory, custodial care of children on an irregular full time or part-time basis.
- e. **Long Day Care** - Long day care centers usually care for children under school age, in premises specially built or adapted for child care. private operators, government agencies, community organizations, employers and non-profit organizations may run long day care centers. They provide all-day or part-time care for working families and offer developmental programs within their care programs. Meals are usually provided with some long day care centers providing care for limited numbers of primary school children before and after school, and during school holidays(Ikwuegbu, 2006).
- f. **Family Day Care** - Family day care service is a network of experienced carers who provide care and developmental activities in their own homes for other people's children. Family day care is primarily for children who have not yet started school. It can also provide care for school children up to 12 years old. Care is flexible and can be tailored to suit each family's needs including care outside normal working hours and, if needed, overnight care.
- g. **Before/After School Care or Out of School Hours (OOSH) care** is supervised care and recreation for school-age children before and after school, on pupil-free days and during school holidays (vacation care). OOSH care is usually associated with schools and caters to primary school children. Most OOSH services are operated by community and private organizations. The government's program is known as Outside School Hours Care (OSHC) or Vacation Care (VC).

- h. **Occasional Care Services** - Occasional Care Services provide short periods of care for children under school age. Families can access occasional care on either a regular or irregular basis. Parents use occasional child care for a variety of reasons including casual, shift-work or part-time work, respite care, crisis and emergency care, shopping or attending appointments. Occasional care allows people the flexibility to leave their children in an early childhood learning environment to socialize and interact with other children. Community organizations, non-profit organizations and local councils may run occasional care centers (Ikwuegbu, 2006).
- i. **In-Home Care** - In-home care is a flexible form of child care where care is provided in the child's home by an approved caregiver. In-home care may be available for families who do not use a standard child care service, or where their child care needs cannot be met by an existing service. Families that may be eligible for in-home care include:
 - a. families where the parent/s or child has an illness/disability families in rural or remote areas
 - b. parent/s working shift work or non-standard hours
 - c. parents who have had a multiple birth (more than two) and/or have more than two children under school age
 - d. breastfeeding mothers working from home (Ikwuegbu, 2006).

2.3 Roles of Stakeholders in Day-Care Provision

The following stakeholders play significant roles in the lives of pre-school children.

- i. **The Home:** Home is seen as a primary agent of socialization. It is synonymous with family in which the parents, brothers, sisters, aunts, uncles and care givers are seen as important in the life of a pre-school child. Nwachi in Ekaete (2004:17) offers explanation of what a family is that:

The family should be seen as consisting of group of persons united by the ties of marriage, blood, adoption, consisting of single households interacting and inter-communicating with each other in their respective social roles of husband and wife, mother and father, brother and sister thereby creating a common culture.

Ekaete (2004) accordingly argues that of all influences a child receives at the formative years, the family is the most significant and the parents are the most important persons in the life of the child. It is the role of parents to provide the socially approved values and norms for the training of the child. This is done through the socialization process as part of child rearing pattern of a given society. Maduwesi (2005) therefore suggests that parents should help their children at this tender age to distinguish between right and wrong, expose them to alternative methods of resolving conflicts and disagreements as well as the interpersonal relationship behavior in the immediate environment. What this implies is the home is an indispensable factor in child upbringing process.

- i. **The Role of the School:** Pre-schools have important roles to play in early childhood development. The pre-schools work in concert with the parents by sometimes mapping the way for the home to follow. The pre-school climate is crucial as a child-friendly school environment encourages a child to regularly attend and be attentive in classroom activities. The commitment of teachers and caregivers, the attractiveness of the school and the provision of functional toys and other play materials are essentials to assist the child to properly develop as

he/she grows up into the society with their peers and others. Pre-school in its totality is expected to play an important role in the intellectual, health and nutrition as well as psycho-social development of children.

- ii. **The Role of the Community:** Community refers to a group of people who share common cultural values and custom who live in the same geographical area. However, with the dynamics occasioned by industrialization and urbanization, the cosmopolitans though the community-oriented concerns have given way to impersonal urban orientation but the same communal concern is expected to be exhibited in day care delivery as the welfare of children rubs off on the community (Maduewesi, 2005). What this implies is, a neglected community child who becomes an armed robber is likely to practice within his/her neighborhood and such of those in the community are at risk. Community-planned and run Child Care Center (CCC) is therefore recommended for each community where everybody's interest is at stake.
- iii. **The Government:** Government has a crucial role in the delivery of pre-primary education as it is regarded as the overall supervisor. It has statutory responsibility to formulate and implement policies that are capable of making CCCs functional and effective. The government also has responsibility to ensure that an enabling environment prevails for child development. Lack of employment opportunities, absence and adequacy of basic infrastructures and services such as water, education, electricity and above all security can have adverse implication on the overall childhood development (Maduewesi, 2005). As the Federal Government of Nigeria joins other countries in responding positively to international conventions that will develop the child, it is her duty

to ensure that all issues agreed and signed are implemented to the letter and an enabling environment upon which there can thrive is put in place.

- iv. **NGOs:** NGOs are currently fashionable in Nigeria though of varying qualities and objectives. They could provide good CCC as models which can be emulated by private/individuals' proprietors. Religious organizations in the similar manner are also duty bound to practicalize their activities to reflect their teachings (Maduewesi, 2005).

2.4 Implementation of Safety Precaution Policy

Giving the importance of Early Childhood Development and Education (ECDE) to the overall development of the child, the 1999 African International Conference in Kampala organized by the World Bank, with the objective of raising public awareness and advocate for ECDE and Early Child Care and Education (ECCE); the African International Conference in Asmara 2002, with the objective to demonstrate that ECDE/ECCE can work in the African context; and finally, the Third African International Conference held in Accra, Ghana 2005, with the objective to put ECDE/ECCE on the political agenda in Africa where 300 participants and 35 countries attended and participated (Ekaete, 2004). It is in response to these international commitments and with many case studies and innovations reported by international organizations like United Nations Educational and Cultural Organization (UNESCO) and UNICEF that the Federal Government of Nigeria through series of recommendations evolved a *National minimum standard on early child care centers in Nigeria*. The minimum standards provides guidelines for the smooth running of pre-primary schools placing a lot of emphases on the safety of the children. Such areas of emphases include the following amongst others as outline in the NERDC (n.d):

Location:

- i. A place that is acceptable to the community (home, community buildings such as civic centers, churches, mosques, existing schools etc)
- ii. Within working distance from home (maximum of 2km)
- iii. Safe and secured environment (free from chemical and other hazards)
- iv. Free from excessive noise and traffic

Facilities

i. Playground

- Enough space for children to play (to take 20 children and two caregivers at a time)
- Safe and secured environment
- May have grass or sand but bushy or dirty
- Not waterlogged
- Free from dangerous objects.
- Fencing
- Facility should be fenced in a manner that prevent outside interference such as rampaging animals.
- Fence to be done with concrete, mind, bamboo, raffia, corn stake, wood, flowers, hedge, plants

ii. Office Accommodation

- Safe and secured space to be provided for safety of school records and materials.

iii. Classroom

- a. Size: Enough space measuring 16 square meters, for 20-25 pupils and well ventilated with at least two doors. Design should allow for free movement and the sitting arrangement should not be too tight
- b. Flooring: Smooth but not slippery
- c. Roof: Use corrugated iron sheets or thatch but the roof must not be leaking.
- d. Ceiling: Modern ceiling boards, raffia, bamboo etc but must not be asbestos ceiling boards.
- e. Door: Wooden or iron that can be locked.
- f. Illumination: Well illuminated that pupils can see any part of the class.

Personnel

- a. There should be one caregiver and one helper per 20-25 pupils of 0-3 years old.
- b. There should be one caregiver and one helper per 30-35 pupils of 3-5 years old.
- c. Caregivers and helpers should be medically fit, committed and trustworthy.
- d. Up-to-date and refresher courses should be organized regularly for the caregivers and helpers.

Basic Qualification

- a. Caregivers for 0-3 years old: Anyone with basic literacy and aged 21years and above.
- b. Caregivers for 3-5 years old: preferably NCE holders, retired nurse, teacher, other educated retirees or holder of SSCE and not less than 21 years old.
- c. Helper: Not less than 21 years old and to possess First School Leaving Certificate (FSLC)

- d. Security: Able bodied and responsible member of the community who must possess FSLC.

Health and Nutrition

1. Health Requirements
 - a. Weekly inspection of the children
 - b. Facilities for preserving expressed breast milk and complementary feeding for 0-2 years old
 - c. Standard First Aid Box and staff trained on its use.
 - d. Treatment of common ailments and appropriate referral
 - e. Evidence of monthly visit from the health worker for routine immunization.
 - f. Regular de-worming for children 4-6 months
2. Health Materials: these include weighing scales, growth charts, height meters, roller meter, shaker arm strip, road to health cards, measuring cups/bottles/spoons/jugs. Others are salt and sugar for regular Oral Rehydration Solution (ORS), hand towels and soap, Information, Education and Communication (IEC) charts/ posters/pictures toilets. Toilets should also be available for caregivers/helpers and children with separate toilets for boy/girls, provision of sanitary facilities, proper refuse disposal, and wash hand basins with soap and water.
3. Nutrition Requirements
 - a. Approved feeding arrangements
 - b. Exclusive breast feeding for 0-6 months old children
 - c. Provision of food complements in addition to breast feeding for 6 months-2year old children
 - d. Provision of good amount of micronutrients in children's diet.

It is expected that nutrition materials should include clean water, facilities for storing breast milk and complementary food for 0-2 year's old, stove and cooking pots/bowls with covers.

2.5 Importance of Child Safety in DCCs

All children have the right to be safe at home, at school and in their child care centers. Safe environments are essential for preventing injury, and enabling children to grow and develop (Water, Natora and Mark 2009).

In line with the modern trends, more children now spend time in child care. This reflects many socio-economic changes, including the increasing number of nursing mothers in employment. The increasing number of children attending child care has led to a corresponding concern for their safety in the absence of parental care. As such, it is imperative for child care providers to avoid incidents, and to promote safety and injury prevention messages and practices in these settings. Child injury is the leading cause of concern among parents about the safety of their children in Day Care Centers. Statistics indicate that child injury deaths are most commonly associated with motor vehicle incidents (both as a passenger and a pedestrian), drowning in backyard pools and house fires. Injury related hospitalizations are mostly due to falls from nursery furniture and play equipment, poisoning, scalds from hot tap water and hot drinks, cuts from household glass, choking and dog bites (Maduewesi, 2005). These types of injuries relate to falls (mostly from playground equipment), products (furniture and toys), impact from another person (child to child collision), and cuts and lacerations (Maduewesi, 2005).

Apart from injury statistics, the other common Day Care Centers (DCC) safety issues in literature as observation has shown include:

- a. Compliance with health and safety standards and regulations as contained in the *ECCE Minimum Standards*.
- b. Staff limitations and supervision challenges—child injuries have been associated with inadequate supervision. This is just like NCCE (2007) has observed a lack of formal child care qualifications among the majority of carers, with usually only one carer available to supervise all children in a DCC.
- c. Location limitations—DCCs are provided in family homes that are designed and built for families rather than groups of children.
- d. The above issues raised has shown that safety measures must be properly addressed for the purpose of DCC to be achieved.

2.7 Prevention of Child Injury in DCCs

Injuries do not just occur, but are caused by hazards. A hazard is any object or situation that has the potential to cause an injury (Kidsafe, 2007). The key to preventing injuries is adopting a risk management approach. In managing risk, hazards are identified and injury risks are controlled by removing, reducing, modifying or separating the hazards to prevent the risk of it causing an injury (Kidsafe, 2007). A range of actions and strategies are required for DCCs services, including:

1. Understand that an ‘accident’ is a myth. Understand that many injuries can be easily prevented by simple means.
2. Constant adult supervision of children is challenging, but is the most effective way to reduce the risk of injury.
3. A safe environment allows children to play safely, and enables staff to supervise and interact with them. Environmental hazards can be minimized by making sure that buildings, grounds, equipment and furniture are safe and well-maintained, and by safely storing and using dangerous products.

4. Having a risk management strategy that is supported by internal policies and procedures for matters such as emergency procedures, sun safety, and injury notification is effective in promoting child safety and injury management. Regularly monitoring and assessing the DCCs environment also reduces hazards and risks.
5. Continuing professional education in child safety has been shown to be the strongest predictor of reducing safety hazards in day care centers.
6. Effective communication between FDC authorities, staff, carers and parents, and carer awareness of current safety standards and information is an injury prevention strategy in itself. This recognizes the importance of FDC coordinators and carers providing safe environments for children and safety information and advice to families (Water, Natora and Mark 2009).

Safety Management

Safety management is aided by understanding and being prepared for supervision, first aid, communications, emergency evacuation, hazard prevention and home maintenance.

Supervision

NERDC (nd) in its *ECCE minimum standards* specifies that carers have a duty to provide effective supervision at all times that children are in their care. Carers must supervise children indoors and outdoors, including during outdoor play, toileting and sleeping, and when children are on excursions away from the DCCs. The minimum standards aim to ensure that all children are adequately supervised.

Actions for adequate supervision of children include:

- a. Supervise all children at the service constantly, actively and diligently

- b. Supervise children within sight or sound where multiple areas are available to children at the same time
- c. Be alert to and aware of the potential for accidents and injury in the DCC and within its immediate environment
- d. Securely fence outdoor play areas
- e. Secure gates in fences with a latch that is inaccessible to children
- f. Ensure the number of children being cared for at one time does not exceed recommended child/staff ratios
- g. Take special care when a child is eating, drinking or on a change table (Water, Natora and Mark 2009).

Other safety measures as discussed by Water, Natora and Mark (2009) include:

First aid

Actions include:

- a. Provide a first aid kit with contents as outlined by an accredited first aid provider
- b. Store first aid kits out of reach of children, in an area easily accessible to the carer
- c. Undertake first aid training
- d. Display a resuscitation chart in a prominent position
- e. Undertake training in how to administer an auto injection device (supervised by coordinators)
- f. Undertake training in anaphylaxis management when a child being cared for is at risk of anaphylaxis.

Communications

Actions include:

- a. Maintain an operating telephone or an alternate effective means of emergency communication
- b. Keep a list of emergency and administrative numbers next to each telephone or other means of communication. The list should include the following Ambulance, Fire Brigade, Police and Nearest Hospital as well as authorized supervisor or coordinator of the DCC.
- c. Keep contact details for each child in a private but easily accessible position near the phone or other means of communication. The contact details should include each child's parent(s) or guardian(s), each child's doctor and contact numbers(s) other than the parent/guardian as a backup in the event of an emergency.

Emergency evacuation and excursions

Actions include:

- a. Develop a plan that will help your carers know what to do in the event of an emergency.
- b. Develop a written evacuation plan, and discuss it with all staff.
- c. Display the written plan inside the Center
- d. Practice evacuation procedures on a regular basis with children.
- e. Assess potential hazards and prepare a risk assessment plan.

Home maintenance

Actions include:

- a. Ensure that the building, grounds, all equipment and furnishings used within the DCC are maintained in a safe, clean and hygienic condition and are in good repair
- b. Undertake regular inspections of the Center to assess any maintenance issues
- c. Have processes in place to ensure that maintenance is undertaken in a reasonable time.

Drowning

Drowning is the leading cause of unintentional death for children under four. Almost half of these deaths occurred in backyard pools and over flow of the river banks. For every recorded drowning, there are typically another four children hospitalised for near drowning. Although home swimming pools are the most common location for drowning, children can also drown in buckets, pots, water tanks, water features, fishponds, or even a pet's water bowl. Young children are naturally attracted to water, and must be constantly supervised when they are in, on, or around any water environment.

Pools and spas

Safety actions include:

- a. Enclose swimming pools or spas with a barrier that completely separates the pool/spa from the Center and other parts of the premises and complies with current *ECCE minimum standards*.
- b. Make spas inaccessible with a locked pool cover or an isolation barrier that conforms to the above standard
- c. Ensure isolation barriers are at least 1.2m high and have no footholds that would help a young child to climb over

- d. Regularly check that the fence supports have not been undermined or become loose
- e. Ensure gates are self-closing, self-latching and have a child-resistant lock regularly check that the locking mechanism is functioning.
- f. Ensure there is no direct access from the Center to the pool
- g. Ensure all windows and doors overlooking or opening into the pool area can be locked. Ensure these are locked at all times, except during entry and exit of an adult or a child supervised by an adult
- h. Ensure windows that allow direct access to a pool or spa cannot be opened more than 100mm
- i. Remove objects that could help a child to climb over a fence, or open a gate, door or window e.g. furniture, plant pots or shrubs growing on the pool fence
- j. Remove the external ladder from above-ground pools and store it out of reach of children when not in use

Ponds/water features

Ensure any pond or garden water feature is:

- a. Secured in position and covered by material that will prevent a child's face getting into the water, or
- b. Completely enclosed by a barrier, such as a fence, wall, gate or door.

Plumbing Fixtures and Appliances

Safety actions for any rooms, areas or cupboards that have a bath, basin, tub, washing machine or similar plumbing fixture or appliance include:

- a. Separate the area with doors or gates that have child-resistant catches
- b. Store sink and bath plugs out of reach of all children

- c. Make pool filters inaccessible to children
- d. Cover taps that children could potentially reach with child-resistant tap covers, especially the hot water taps.

Stairs and balustrades

Safety actions include:

- a. Ensure the design of stairs and balustrades are in accordance with relevant building codes or standards
- b. Ensure stairways, ramps, corridors, hallways, external access balconies or bridges that have one or more sides 1m higher than the floor or ground are bounded by a wall or balustrade
- c. Ensure balustrades:
 - (i) Are at least 865mm above the stair tread
 - (ii) Only have horizontal rails or footholds at the top and base.
- d. Remove all trip hazards such as loose floor mats, or install non-slip underlay.
- e. Keep furniture away from windows, balconies and banister railings
- f. Use gates and barriers at the top and bottom of stairs.
- g. No child should be left unattended or unsupervised on any raised surface.

Under surfacing

Under surfacing is designed to minimize injury and absorb the impact of a fall when the fall height is 500mm or more. Asphalt, concrete and grass are not considered under surfacing for this purpose. It is recommended that all heights of 500mm or more above ground level require under surfacing that is compliant with AS/NZ 4422:1996. Options include loose-fill materials such as pine bark, synthetic grass with an impact layer beneath, a number of portable mat systems that offer impact absorption and wet-pour rubber surfaces. It is recommended that loose-fill material be installed to a depth of

at least 300mm and maintained at a depth of 250mm. Caregivers need to be careful with the selection of sand as under surfacing, ensuring that the sand also complies with the Australian playground standard. It is important to discuss under surfacing options and seek advice from local playground authorities.

Maintenance of play equipment

Safety actions include:

- a. Ensure that play equipment is strong, sturdy and securely anchored. Secure ropes top and bottom so they cannot form a noose. Ensure that footings are at least 200mm below ground level
- b. Ensure play equipment does not have sharp edges, splinters or protruding parts that could pierce skin, tangle or catch clothing
- c. Play equipment should comply with Standards Organization of Nigeria (SON) regulations.
- d. Check all play items regularly for spiders and insects and water catchment
- e. Check all play items for rust, detachments or weakening from sun exposure
- f. Inspect all chains for rust, and wear and tear.

Swings

Safety actions include:

- a. Ensure swing seats are made of a soft, flexible plastic and have no more than two seats per frame
- b. Check the connections of the swing at the seat regularly for sharp, protruding parts
- c. Check swing ropes and chains regularly for rust, deterioration, and wear and tear
- d. Ensure swing frames are well anchored into the ground, and that under surfacing is provided.

Sand Pits

Safety actions include:

- a. Ensure sandpits remain covered at all times when not in use
- b. Regularly check sandpits for animal contamination
- c. Encourage children to brush sand from their clothes when exiting the sand pit; this prevents excess sand dropping onto indoor floor surfaces making them slippery.

Windows, openings and balconies

Safety actions include:

- a. Do not open any window or other opening from which a young child could fall more than 1.5 meters by more than 100mm
- b. Place all furniture away from balconies and windows, especially those with curtain/blind cords, to prevent access and possible strangulation from cords.

Outdoor areas

Safety actions include:

- a. Ensure any tree, shrub, ladder, fence, roof, wall or other object which a young child might and fall over 1.5m from:
 - Is made inaccessible to children
 - Contains no hard, jagged or protruding surfaces or objects onto which a child could fall
 - Is regularly maintained and checked
- b. Make inaccessible to children all holes, wells, trenches and excavations.

Furniture and furnishings

Safety actions include:

- a) Make inaccessible all furniture to which a young child could gain access and fall over 1.5m from
- b) Put locking devices on drawers to prevent children opening them and using them as steps
- c) Secure all potentially unstable pieces of furniture to prevent them from falling onto a child. These include, but are not limited to, chests of drawers, bookcases, televisions and shelving units
- d) Use only high chairs that are sturdy and stable, and fitted with a five-point harness.
- e) Children should be harnessed using all five points at all times when in high chairs
- f) Ensure all bedding conforms to a safe sleeping environment
- g) Do not use baby walkers, jolly jumpers or indoor swings. These are not recommended for DCC services
- h) Do not place baby bouncers on raised surfaces.
- i) Avoid bunk beds. These are not recommended for children under the age of 9 years.

Flooring and stairs

Safety actions include:

- a) Ensure all floors have a slip resistant surface where possible
- b) Secure all rugs and carpets to prevent a child tripping and falling
- c) Install gates and barriers at the top and bottom of stairs when young children are in care.

Burns and Scalds

Children under five are at high-risk of injury from smoke, burns and scalds. Heaters, fires, barbecues and irons are all potentially dangerous items that can lead to serious burns, or cause house fires. Other dangers include anywhere that children can access hot water or fluids, and outdoors when they are exposed to the sun.

Fire and smoke

Safety actions include:

- a) Install smoke detectors in the home, especially outside bedrooms. Check and change batteries regularly to ensure that they are operational.
- b) Install a fire extinguisher at a distance from any potential fire source (i.e. stove or oven), so that it is easily accessible in the event of fire. Conduct maintenance of the extinguisher as required.
- c) Keep a fire blanket at a distance from any potential fire source (i.e. stove or oven) so that it is easily accessible in the event of fire
- d) Regularly practice using fire extinguishers and blankets
- e) Develop fire escape plans and regularly practice these with the children
- f) Teach children to ‘Stop, Drop, Cover and Roll’ if their clothes catch fire, and ‘Get down low and go’ in case of a house fire.

Hot Water

Scalds from hot water are the most common type of injury, with most of these injuries occurring in DCCS.

Safety actions include:

- a) Control hot water service to deliver water at a maximum temperature of 50°C by installing a temperature-limiting device such as a thermostatic mixing valve or a tempering valve. Ask a plumber for advice.

- b) Ensure any exposed hot water pipe, vessel or appliance is kept out of reach of children, or made inaccessible by appropriate barriers
- c) Cover taps, especially hot water taps, in the bathroom, kitchen and laundry with child-resistant tap covers, or ensure the tap itself is a child-resistant tap
- d) Ensure that the cold water tap is run first and turned off after the hot water tap when children may have access to running water when in the supervision of an adult.

Hot Liquids and Foods

A hot cup of tea spilled on a child is comparable to a bucket of hot tea on an adult because of their relatively small body area, sensitive young skin and low position in relation to hot objects, young children are particularly at risk of suffering severe injuries from scalds or burns.

Safety actions include:

- a) Keep all hot drinks and hot food out of reach of children until cool enough to consume
- b) Use rear elements of the stove first, and turn pot handles to the back. Use stove guards to prevent children reaching pots and spilling hot liquids onto themselves.
- c) Take care when heating baby bottles, particularly if they are heated in a microwave oven or by standing in boiling water
- d) Choose cordless kettles and place them at the rear of a kitchen bench. Only boil enough water needed for tea/coffee or cooking, and empty the rest. Remember kettles can scald a child even 30 minutes after boiling

- e) Avoid using tablecloths. These hang over the table edge, and children can reach and pull them, potentially spilling hot liquids onto themselves. Placemats are a safer alternative.

Open fires, electrical and other heaters

Safety actions include:

- a) Ensure any open fire, stove or other fuel-burning space heater is enclosed by a guard/barrier that:
- Is placed at least 150mm clear of any hot surface if openings in or around the guard are 20mm or less
 - Is at least 700mm above and 500mm clear of any hot surface where openings in and around the guard are greater than 20mm
 - Cannot be removed or displaced by young children
 - Prevents contact with flames or a hot surface, including flues
 - Prevents contact with clothing that could be ignited.
- b) Do not use portable kerosene heaters, blow heaters or bar radiators, or separate them from children by placing them in a secure, child-resistant location
- c) Heaters should be guarded to prevent children coming into contact with the hot surface.
- d) Ensure any electric or radiant gas heater, fan heater or similar space heating appliance that has high temperature heating elements or hot surfaces are secured and kept out of reach of children
- e) Ensure the surface temperature of any heater or other heating appliance will not cause a burn. These appliances include Air conditioning duct outlets, Non-fan convection panel, Gas or electric wall furnaces, Electric storage heaters or heat

banks, Fan-forced gas/electric heaters with guarded heating elements, Heated towel rails

- f) Consider installing a secondary guard to prevent children having contact with the primary heat source and ensure the secondary guard itself does not cause a burn or ignite clothing.

Matches, lighters, stoves and explosive substances

Safety actions include:

- a) Store matches, lighters, cigarettes, candles, ashtrays and explosive substances in locked cupboards out of reach of children
- b) Remove cigarette lighters from vehicles.

Flammable liquids

All flammable substances should be:

- a) Stored in a container that is correctly labeled and designed for the storage of flammable liquids, and
- b) Stored out of reach of young children in a secure, child-resistant location.

Sharp, pointed and jagged objects

Safety actions include:

- a) Store knives, scissors and sharp kitchen utensils securely, and keep out of reach of children
- b) Ensure other sharp, pointed or jagged objects, or materials that could be broken and produce sharp, pointed or jagged parts, are not accessible to children. These materials include bottles, wire, plants and building materials
- c) Place corner protectors on furniture such as tables or benches that have corners less than 900mm above floor level.

Furniture Gaps

Gaps in furniture, doors, stairs, cots, bunk beds, etc, that are large enough for a child to fall through, but small enough that the child's head cannot pass through, may lead to head entrapment and strangulation. Similarly, small gaps may lead to finger entrapment and amputation (particularly door jambs). Children under three years are most at risk of finger jam injuries.

Safety actions include:

- a) Ensure all gaps are smaller than 89mm or larger than 230mm to prevent head entrapment
- b) Ensure all gaps are smaller than 8mm or larger than 25mm to prevent finger entrapment
- c) Modify doors by:
 - Installing catches or self-closing springs on front and back of doors to keep them open
 - Installing special door strips to guard the hinge side of doors, or
 - Using chocks, wedges or catches to keep doors from slamming shut.

Blind and curtain cords

Blind and curtain cords pose an injury or strangulation risk for pre-school children, particularly those under the age of three.

Safety actions include:

- a. Ensure the length of any blind or curtain cord is minimized by securing them at least 1.5m above the floor, and using cord tensioning devices or cleats to attach them to the wall well out of reach of children
- b. Place nursery furniture such as cots and change tables well away from windows to prevent children being able to reach and pull on the cord

- c. Ensure any other cord commonly found in the house (e.g. rope, clothes line, part of furniture/toy/play equipment, and electrical cords) that could lead to entrapment of the head, neck, limb, fingers or clothing of a young child is placed out of reach.

Suffocation

Safety actions include:

- a. Ensure all plastic bags are stored out of reach of children and, where possible tie a knot in them to prevent a child from placing them over their head.
- b. Store containers that could become lodged over a child's head out of reach of children
- c. Ensure that, where children have access to cushions and pillows in the play environment, they are adequately supervised at all times
- d. Store any bean bags in an area out of reach of children.
- e.

Poisonous plants and trees

It is recommended that caregivers and coordinators research the plants existing in gardens, as well as new plants, to ensure a safe and hazard free outdoor play environment. If unsure, caregivers should consult their local garden nursery, or the Poisons Information Centre. This is particularly an issue for toddlers (0 to 3 years) who are still at the mouthing stage of development.

Safety actions include:

- a. Check children's play area and check that plant species are safe
- b. Remove or make inaccessible to young children plants that produce berries, nuts or pods that can pose a choking hazard.

Vehicle Safety

Every person responsible for transporting children in a motor vehicle must hold a current and appropriate drivers' license.

Other safety actions include:

- a. Ensure all motor vehicles used for transporting children in the course of DCC services are registered, roadworthy and appropriately insured
- b. Ensure all vehicles are fitted with Australian Standard approved child restraints that are sufficient in number and appropriate to the age and size of all children to be carried.
- c. Avoid two-door vehicles. These are not recommended for transporting of children in DCCs.
- d. Seat children in the back seat of cars, especially if the car is fitted with passenger airbags
- e. Have safety bolts checked by an accredited fitting organization
- f. Do not use second hand restraints
- g. Restrain each child with an appropriate harness or seat belt when in the car
- h. Think about the access children have to car doors and windows whilst the vehicle is moving. Where possible, engage safety door and window locks, and only allow the driver to control them
- i. Secure all motor vehicles, including cars, motorbikes, and tricycles.

Toys and games

Safety actions include:

- a. Choose toys or play equipment that do not have sharp edges, sharp points or hooks, splintery surfaces, heavy moving parts, or parts that crush, or which are

capable of launching projectiles. Store any such toys out of reach of young children

- b. Ensure that items used for toy storage do not have lids that could crush or entrap a child's hand or fingers
- c. Ensure that toys or other play equipment do not contain toxic material
- d. Adhere to age appropriate warning labels on toy packaging
- e. Avoid the use of baby walkers, jolly jumpers and inside swings.

Motorized toys

Motorized toys with wheels are not recommended for use by any children in DCC settings. These include, but are not limited to Motorized scooters, Wheeled All Terrain Vehicles (ATVs) and Mini motor bikes.

Choking, Inhalation or Ingestion of Foreign Bodies

Anything smaller than 30mm in diameter is a potential choking hazard for pre-school children.

Recommended safety actions include:

- a. Store any objects that are less than 30mm in diameter out of reach of young children
- b. Store any object that could possibly smother or suffocate (e.g. plastic bags, pillows, cushions) out of reach of young children
- c. Avoid all hard items, including small food items, for young children (e.g. small beads, peanuts)
- d. Be wary of toys that contain magnets, small removal parts or parts that may break off and cause significant damage if ingested.

Electrocution

Electrical currents are a significant cause of death and injury in DCCS. Particularly at risk are children playing with electrical equipment, and very young children placing items such as pins into live electrical sockets or appliances.

It is strongly recommended that all homes be fitted with electrical safety switches that comply with SON standards. These safety switches can only be installed by a registered electrician. They are installed in the Center power switchboard, and turn electricity off when an electrical surge or fault develops in wiring or appliances.

Safety actions include:

- a. Ensure household wiring, plugs, cords and appliances are in good order and comply with the relevant standards
- b. Do not use electrical appliances in wet areas such as the bathroom. If electric heaters are needed, only use those mounted in the ceiling, high on the wall or under the floor
- c. Ensure electrical equipment is effectively guarded or shielded and cannot be reached or operated by young children
- d. Ensure children do not play with electrical wiring or electrical items
- e. Perform basic maintenance such as changing bulbs with the power off and preferably when children are not in attendance
- f. Use electrical plug-in covers or similar devices to prevent children poking things into power points
- g. Unplug items not in use and store them away.

2.7 Availability of Safety Devices

The quality of education children receives has direct reflection of the availability or lack of physical facilities and overall atmosphere in which learning takes place. The day care facilities consist of all types of buildings for academic and non-academic activities, equipment for academic and non-academic activities, areas for sports and games, landscape, farms and gardens including trees, roads and paths. Others include furniture and toilet facilities, lighting, acoustics, storage facilities and parking lot, security, transportation, cleaning materials, food services, and special facilities for children with special needs. These facilities play pivotal role in the actualization of the educational goals and objectives by satisfying the physical and emotional needs of the personnel and pupils. Ihuoma (2008) emphasized that the physical, emotional, social and academic needs of children in DCCs are met through provision of safe structure, adequate sanitary facilities, a balanced visual environment, appropriate thermal environment, and sufficient shelter space for play. The child's emotional needs are met by creating pleasant surroundings, a friendly atmosphere, and an inspiring environment.

Childhood educational system has undergone tremendous changes in the form of its philosophy, broadened goals and objectives, new approaches to service delivery and architectural design, quantum leap in school enrolment, multiplicity of curricular and extra-curricular activities, introduction of Information and Communication Technology (ICT) and expanded academic support services. The resultant effect of all these changes is the need for creative and innovative steps in the management of facilities at DCCs. For example, research findings have shown that students learn better when a combination of methods and materials are employed during teaching. Furthermore, emphasis has shifted towards giving individual attention to students as against teaching large classes which presupposes that all learners in a class have the ability to learn at the

same pace (Fenker, 2004). The implication of the foregoing is that in designing school plant, provision should be made for individual, small or large group interaction academic and social activities.

Fenker (2004) described facilities management as the practice of co-ordination of the physical workplace with the people and the organization; it integrates the principles of business administration, architecture and the behavioral and engineering sciences. School facilities management is the application of scientific methods in the planning, organizing, decision-making, co-ordination and controlling of the physical environment of learning for the actualization of the educational goals and objectives. This involves among other things, collective decision making in relation to selection of site for establishment of new schools, design and construction of new school plants including grounds, renovation and modernization of old plants, provision of equipment for academic and non-academic activities, maintenance of all facilities and review of management practices and processes.

Facilities generally are materials designed to serve specific purposes. In day care, there are multiplicity of facilities, which facilitate teaching and learning. They are used:

- a. To illustrate concepts
- b. Provide opportunity for firsthand experience
- c. For experimentation and demonstration
- d. For scientific investigation and discovery
- e. To provide diversity of thoughts
- f. For observation and inquiry
- g. For development of scientific attitudes and skills
- h. To protect the individual and also provide comfort (Fenker, 2004).

The indirect or teaching support facilities such as offices, cafeteria, acoustics, toilets, laundry, mowers, residential halls, common rooms, cleaning materials ground and similar items satisfy the individual's physical and emotional needs.

For the above to be achieved there is need for effective audit of safety facilities. According to Finker (2004) facility audit is a comprehensive inventory of a school's facilities that provides a standard method for establishing baseline information about the components, policies and procedures of a new or existing facility. It provides information on the status of school facilities. Such facilities must be compliant to safety standards. It is carried out by assessing buildings, grounds and equipment, documenting the findings and recommending service options to increase efficiency, reduce waste and save money. This exercise is important in DCCs because it ensures that up-to-date facilities are provided to ensure the safety of children and provide baseline to inform plans for maintaining and improving school facilities. An audit exercise is expected to establish the following information about the availability of safety facilities in DCCs:

- a. Brand name, model number, serial number
- b. Quality and product size
- c. Location
- d. Age
- e. Condition
- f. Working as purchased/designed
- g. Working as it should
- h. Repair history
- i. Specialized upkeep equipment (e.g. oil and filter types)
- j. Evidence of future needs
- k. Recommended services

1. Estimated remaining useful life

The above information are expected to inform the management of DCCs on the quality and quantity of safety facilities.

2.8 Review of Empirical Studies

Tabat (2009) conducted a study on the effect of play and play materials on the social development of pre-school children in Kaduna metropolis. The study was premised on 4 research questions and 3 hypotheses and it adopted an experimental design while pre-school children served as population for the study and the population was drawn through proportionate random sampling technique. Data was collected with the use of observation while t-test was used to analyze the data collected. Finding of the study indicated adverse effect of unsafe play materials on the social development of the children. The researcher recommended that safe, adequate and appropriate play materials should be provided to the pre-school children by proprietors.

Tabat's (2009) study rather dwelled on safety of play materials. This study however covered the gap left by encompassing the general safety in pre-schools as findings are expected to be found to be relevant in collaborating the opinion of care givers and parents on the safety situation in DCCs.

Peng (2010) also conducted a study which examined the relationship between various types of child care during the first year of a child's life and the child's language and social development measured at age three. The population of the study was all children registered for post natal treatment at the General Hospital, Seattle, USA. A unique contribution of the paper is the estimation of a general selection correction model that accounts for non-random selection of children into different types of child care. The analysis uses data from the Fragile Families and Child Wellbeing Study (FFCWS), a birth cohort of children born to predominantly low-income single mothers

and the data was analyzed using Pearson correlation. The results indicated that compared with maternal care, relative safety care during infancy has more beneficial effects on a child's social development, while safe day care centers have more beneficial effects on a child's behavioral development.

The finding of Peng's study is relevant to this study as it is concerned with the safety of children at infancy in relation to their social development. However, this study is concerned with the overall need for safety precaution of children in DCCs with a view of ascertaining the level of implementation of safety precaution in DCCs.

Rentzou's (2010) study examines the significant growth of interest in ensuring that child care provision for children is of a high quality. This interest has been stimulated by research evidence according to which good quality child care has a positive influence on children's overall development. The global quality in Greek preschool and infant/toddler classrooms was assessed with Global Guidelines Assessment (GGA), Early Childhood Environment Rating Scale-Revised (ECERS-R) and Infant Toddler Environment Rating Scale (ITERS). The research data confirms previous research results from Greece, and suggests that Greek Child Care Centers provide low quality care and education as well as poor safety measures.

The study of Rentzou (2010) has provided the state of implementation of DCCs in Greek which is regrettably poor. In Rentzou's study, parents did not constitute the population of the study. This study however, is intended to establish the opinion of care givers and parents on their satisfaction of safety measures as it is being implemented DCCs in Gombe State, Nigeria.

The study of Bigras, Bouchard, Cantin, Brunson, Coutu, Lemay, Tremblay, Japel, Charron (2000) sought to determine whether center-based and family-based child care services differ with respect to safety measures, as measured by the Educative

Quality Observation Scales ("EQOS", Bourgon and Lavallee 2004a, b, c), for groups of children 18 months old and younger. It also sought to identify structural variables associated with process quality in these settings. The study included two types of regulated child care settings located in the greater Montreal area (center-based: N = 53 and family-based: N = 36). Results indicate that process quality was lower in family-based child care than in center-based child care for the majority of elements measured by the EQOS. Hierarchical regression analyses indicate that higher levels of process quality were associated with structural variables, including a lower adult-child ratio, the presence of more staff with specialized early childhood education training, and center-based care.

The study of Bigraset *al* (2000) is rather a comparative study of safety measures in Center-based and family-based child care delivery. This however is similar to this study as it is concerned with parents' opinion on the safety of children in DCCs.

Cashmore and Jones (2008) carried out a study premised on child care center as an ideal setting in which to implement strategies to promote safe physical activities and healthy weight, but there is a paucity of empirical evidence on factors that influence physical activity in these settings. The study gathered initial qualitative data to explore these factors. Child care workers from five long day care centers in inner Sydney participated in focus group interviews. The participants identified a range of factors that influence physical activity participation in long day care centers, including barriers to the provision of physical activity opportunities. The study provide specific recommendations for health promotion strategies to increase safe physical activity in child care centers, such as: support the implementation of dance and creative movement programs; explore settings other than, or in addition to, formal child care to implement

programs to promote mastery of fundamental movement skills; and develop a set of physical activity guidelines for Australian children ages one month to five years.

Cashmore and Jones (2008) has provided conditions for the provision of safety physical activities in Australia. This study is rather limited as it was concerned with the promotion of strategies to enhance safe physical activities in Child Care Centers. This study however, is meant to examine care giver's and parents' opinion regarding child safety implementation standards in Gombe state generally. Cashmore and Jones's study is still of importance in the present study as it has provided a basis for strategies for children safety in DCCs. Therefore, many studies have been conducted to assess availability and implementation of safety precautions in public schools without minding private schools. The involvement of private and public schools in assessing availability and implementation of safety precaution of day-care centres in Gombe State is the major gap this study filled.

2.9 Summary of Literature Review

The review of literature has looked at what is day care system of education and its evolution in Nigeria as well as roles of major key holders in its effective delivery like the home, the community, the government amongst others. The policy implementation of day care in Nigeria has been traced to the country's commitment to it with the eventual release of ECCE Minimum Standards. The Minimum Standards has prescribed safety conditions to be observed by providers in terms of location, facilities to be put in place, health measures and the kinds of personnel to man day care. Under the theoretical framework, the theories of Maslow's hierarchical needs, Piaget Theory of Cognitive Development and Theory of Behaviorism. In addition, review of empirical studies relating to the study is also done.

In spite of the existing research works on pre-primary education, none is carried out in Gombe State on the opinion of caregiver's and parents on the implementation of safety in day care. More so, it becomes imperative for the study to be conducted as there is the urgency to improve the quality of safety measures to be adopted by day care providers which would ensure safety of children in day care centres while parents are engaged in other commitments.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter discusses the methodologies and design of the study presented under the following sub headings:

- 3.1 Research Design
- 3.2 Population for the Study
- 3.3 Sample and Sampling Procedure
- 3.4 Instrument for Data Collection
 - 3.4.1 Validation of the Instrument
 - 3.4.2 Pilot Study
 - 3.4.3 Reliability of the Instrument
- 3.5 Procedure for Data Collection
- 3.6 Procedure for Data Analysis

3.1 Research Design

This study adopted a descriptive survey research design. This survey research design according to Fowler (2009) provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. It includes cross-sectional and longitudinal studies using questionnaires or structured interviews for data collection—with the intent of generalizing from a sample to a population. Ijaya (2000) viewed descriptive survey research as a study which involves an investigation on entire population of people or items by collecting data from samples drawn from a population and assuming that these samples are true representatives of the entire population.

The rationale for choosing this design is that, it is considered most appropriate design to be used in carrying out the study which seeks the opinion of day care givers and parents. Hence the design helped the researcher to identify the characteristics of the population and this enabled the researcher to gather reliable information for the study.

3.2 Population of the Study

The population of this study consisted of all the 340 Day Care Centers (DCCs) registered under Gombe State Universal Basic Education Board (SUBEB) which consist of 13,837 parent and 880 care givers across three senatorial zones of the state (ERCG, 2012). These three senatorial zones consisted of GombeSouthwith four Local Government Areas. Gombe central with three Local Government Areas and Gombe central has four Local Government Areas respectively.GombeSouth, Central and North coversall the Local Government Areas of the State (Table 3.1).

Table 3.1: Population of Daycare centers / Day care givers and parents in Gombe State

s/no.	Senatorial District	No. of DCCs	Day care givers
1	Gombe South	92	230
2	Gombe Central	150	350
3	Gombe North	98	300
Total		340	880

Source: Education Resource Centre, Gombe (2012); DCCs = Day Care Centers

3.3 Sample Size and Sampling Procedure

The sample size for this study was two hundred and forty (240). The multistage sampling technique was adopted in the selection of the sample for the study. This is because the population involved in the study is large and it is spread over a wide geographical area. In the first stage, the entire population was sub-divided in to three clusters (i.e. senatorial zones of the state) Gombe South, Gombe Central and Gombe North. Then, two Local Government Areas (LGAs) were randomly selected out of each of the cluster (the three senatorial zones of Gombe state). The LGAs selected were:

Kaltungo, and Balanga LGAs from Gombe South senatorial zone; Akko and YamaltuDeba LGAs from Gombe Centre senatorial zone; Gombe and Dukku LGAs from Gombe North senatorial zone. The total of six (6) LGAs was the result at this stage.

In the second stage, from the six (6) LGAs selected, ten Day Care Centers (DCCs) each were randomly selected, making a number of 60 DCCs. From the 60 DCCs selected 4 subjects (two care givers) were further randomly selected from each of the 60 DCCs. This means that the population was sampled proportionately giving a sample size of 60 DCCs and 240 respondents for the semi-structured interview See Table 3.2.

Table 3.2: Sample of Population of Daycare Centers/ Caregivers and Parents in Gombe State

S/No	Clusters	Selected LGAs	No of DCCs	Total Sampled population
1	Gombe South	Kaltungo, LGA	10	40
		Billiri LGA	10	40
2	Gombe Central	Akko LGA	10	40
		Yamaltu LGA	10	40
3	Gombe North	Gombe LGA	10	40
		Dukku LGA	10	40
Total			60	240

3.5 Instrument for Data Collection

The instrument for data collection was a researcher’s designed observational index entitled “Availability and Implementation of Safety Precaution in Day-care centers” (AISPDC). The questionnaire was divided into two (2) sections ‘A’ and ‘B’. Section A sought the Bio-data while section B consists of 49 items derived from the components of Day-care education earlier listed. It was structured using a four point modified Linker scale of Very High Extent (4 points), High Extent (3points),

Moderate Extent (2 points), and Low Extent (1 point) and Very Adequate (VA – 4 points), Highly Adequate (HA – 3 points), Moderately Adequate (MA – 2 points) and Not Adequate (NA – 1 point) where appropriate. Using 2.5 as the criterion mean, items with a mean score of more than 2.5 was accepted, while those statements with mean score below 2.5 were rejected. The researcher visited the schools, observed, and filled the observational index by scoring the availability, adequacy, and maintenance of facilities, hygiene practices, hazard prevention and care giver's personality. The data collected was analysed descriptively using frequencies and percentages for the bio-data, mean and standard deviation for the research questions while inferential statistics of t-test and Pearson Product Moment Correlation (PPMC) was used to test for differences and relationships respectively.

3.5.1 Validation of the Instrument

The instrument was given to three (3) lecturers at the Ahmadu Bello University, Zaria; two (2) were professionals in Home Economics and the other an expert in Educational Measurement and Evaluation. This was done to consider whether the instrument was capable of measuring what it purports to measure. The validates were requested to examine the instrument to ensure that the instrument relates to the purpose of the study, research questions and hypotheses. After the content and facial validation, their comments and corrections helped in the final development of the instrument.

3.5.2 Pilot study

The pilot study was conducted at Bauchi in Farida and Angel day care centers. These day care centers were selected because they are not within the day care centers to be sampled for the main study but share similar characteristics. A total of 70 respondents were used for the pilot study. The researcher personally administered the instrument and conducted the interview for the purpose of reliability test of the

instrument and to identify, correct or avoid ambiguous and misleading questions or that may yield un-interpretable or otherwise useless responses, before beginning data collection.

3.5.3 Reliability of the Instrument

Internal-consistency of the instrument was determined using the Cronbach Alpha reliability technique. The result obtained from the pilot study was statistically analyzed. Consequently a reliability coefficient of 0.832 was realized. This coefficient was considered adequate for the internal consistencies of the instruments. This according to Stephen and Spiegel (1990) an instrument is reliable if its reliability lies between 0 and 1. They explained that the closer it is to 1, the more reliable is the instrument, and that the closer it is to 0, the less reliable is the instrument. Hence, this confirms the instrument used as fit and suitable for the main study.

3.6 Procedure for Data Collection

The researcher personally administered the instrument (observational index) and rates all observable phenomenon's appropriately. This exercise took the researcher and the four assistants four weeks to execute. The semi-structured interviews were conducted on care givers in the sampled day care centers. The use of semi-structured interviews in this research allowed the participants to express themselves freely and they also commented freely on certain issues which were not scheduled in the questionnaire or interview. The researcher tried as much as possible to avoid introducing any bias in the interviews by making sure that the interviewee were not provided with any information as to how other participants had responded. The interviews were conducted in open places, without anyone over hearing on the conversations. The researcher always sought to establish the truth and recorded all the

information provided. This was achieved by the researcher with the help of the four Research Assistants.

3.7 Procedure for Data Analysis

The data collected from the questionnaire were summarised presented in tables, analysed using frequency, percentage, the mean and standard deviation of the SPSS 2001 software package. The results were analysed thus, Very High Extent (4 points), High Extent (3points), Moderate Extent (2 points), and Low Extent (1 point). However, any mean response that is less than 2.50 was rejected while a mean response above 2.50 was accepted in all the items of the statements respectively. The null hypotheses formulated were tested for significant difference using the inferential statistical method of t-test statistics at 0.05 alpha levels. During the analysis the interview responses were translated into figures and coded based on the degree of their acceptance and rejection for analysis.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

This chapter presents the data analysis and the discussion of results. The research involves a total of 240 respondents from sixty Day Care Centers (representing 100%) whose responses from the data of the study. The data was analyzed using the SPSS Statistical Package. The respondents were parents and caregivers of the day care centres in Gombe State. The presentation and analysis are presented under the following sub-headings;

- 4.1 Analysis of bio data
- 4.2 Answering of research questions
- 4.3 Testing of Hypotheses
- 4.4 Summary of Major Findings
- 4.5 Discussion of Major findings

4.1 Analysis of bio data

Table 4.1 Distribution of Respondents According to their Local Government Area, Occupation and Sex

Local Government Area	Frequency	Percent (%)
Kaltungo	10	16.7
Balanga	10	16.7
Akko	10	16.7
Yamaltu	10	16.7
Gombe	10	16.7
Dukku	10	16.7
Total	60	100.0
Occupation		
Civil servants	100	40

Care giver	120	50
Others	20	10
Total	240	100.0
Sex		
Male	20	10
Female	220	90
Total	240	100.0

According to Table 4.1 10 representing 16.7% were randomly sampled from Local Government Areas of Kaltungo, Balanga, Akko, Yamaltu, Gomzbe and Dakku respectively. This reveals that the respondents were evenly distributed in each of the Local Government Areas. The respondents' occupation as presented in Table 4.1.2 revealed that 100 of them representing 40% were civil servants while 120 were caregivers in the Day Care Centers, representing 40%, however, 20(10%) were in other forms of occupation. Details from Table 4.1.3 revealed that out of 240 respondents, 20 representing 10% were males while the rest 220 representing 90% of the respondents were females. This implies that there were more of the females than the male caregivers in the study area.

4.2 Answers to research questions

Research Question 1 What are the child safety measures in the Public and Private Day-Care Centers in Gombe State?

Answer to research question one is presented in Table 4.2.1.

Table 4.2 Responses on Child Safety Measures at Public and Private Day-Care Centers in Gombe State Senatorial Zones

S/NO	ITEMS	Gombe South DCC		Gombe Central DCC				Gombe North DCC				Total DCC				Decision		
		Public N=40 Mean	SD	Private N=40 Mean	SD	Public N=40 Mean	SD	Private N=40 Mean	SD	Public N=40 Mean	SD	Private N=40 Mean	SD	Public N=120 Mean	SD		Private N=120 Mean	SD
1	Classroom meets Federal Govt. provision of (7m by 4m by 3m)	3.55	.50	3.73	.45	3.65	.48	3.50	.51	3.30	.46	3.53	.51	3.50	.50	3.58	.50	Yes
2	Teacher/pupil ratio meets Federal Govt. provision (1:20)	3.30	.46	3.33	.47	3.28	.45	3.28	.45	3.13	.52	3.25	.59	3.23	.48	3.28	.51	Yes
3	Classrooms are well ventilated	2.88	1.09	2.80	.85	2.83	.81	2.93	1.00	3.15	.86	2.88	.94	2.95	.93	2.87	.93	Yes
4	Seats are suitable to pupils age	3.40	.50	3.35	.48	3.35	.48	3.28	.45	3.20	.52	3.30	.61	3.32	.50	3.31	.52	Yes
5	Side lockers are provided for classroom apparatus	3.40	.50	3.40	.50	3.43	.50	3.25	.59	3.03	.73	3.20	.76	3.28	.61	3.28	.62	Yes
6	Schools are located in conducive environment	3.53	.51	3.33	.47	3.50	.51	3.43	.50	3.23	.66	3.33	.66	3.42	.57	3.36	.55	Yes
7	Schools are properly fenced	3.68	.47	3.65	.48	3.75	.44	3.65	.48	3.40	.50	3.58	.50	3.61	.49	3.63	.49	Yes
8	Suitable topography of school environment	3.30	.46	3.28	.45	3.33	.47	3.18	.55	3.15	.80	3.15	.66	3.26	.60	3.20	.56	Yes
9	Schools are free from hazards (absence of edible fruits, position of electric poles)	3.80	.41	3.68	.47	3.55	.50	3.60	.50	3.43	.84	3.48	.75	3.59	.63	3.58	.59	Yes
10	Toilets are gender friendly	3.98	.16	3.88	.33	3.70	.46	3.75	.44	3.73	.45	3.78	.42	3.80	.40	3.80	.40	Yes
11	Periodic safety trainings organized for staff	3.85	.36	3.78	.42	3.70	.46	3.75	.44	3.60	.71	3.58	.68	3.72	.54	3.70	.53	Yes
12	Apparatus and equipment properly kept	3.85	.36	3.78	.42	3.70	.46	3.75	.44	3.60	.71	3.60	.71	3.72	.54	3.71	.54	Yes
Cumulative														3.5	0.6	3.4	0.6	

Table 4.2 revealed the perception of respondents on child safety measures at the public and private Day-Care Centers in Gombe State senatorial zones. The cumulative mean responses of all the items were 3.5 and 3.4 for public and private day-care centers respectively which are higher than the decision mean of 2.50 with the standard deviation value of 0.6 for both public and private day care centers implying that their responses were significant. Specifically, majority accepted that toilets are gender friendly as this item attracted the highest mean response of 3.80. Other safety measures includes spacious and ventilated classrooms and accident free environment. This implies that child safety measures are in place at both public and private day-care centers in Gombe state.

Research question 2 What are the care givers opinion on the present condition of safety precaution measures at the Day-Care Centers in Gombe State?

Table 4.3 presents the care givers opinions on the present condition of safety precaution measures at the day-care centers in Gombe state.

Table 4.3 Perception of Care-givers on the Present Condition of Safety Precaution Measures at Day-Care Centers in Gombe State

S/N	ITEMS	Care Givers N=120		Parent N=120		Total N=240		Decision
		Mean	SD	Mean	SD	Mean	SD	
13	Adequacy of toilets	3.78	.42	3.67	.63	3.72	.53	Adequate
14	Toilets are in good condition	3.93	.26	4.00	.00	3.96	.19	Adequate
15	Condition of toilets (properly maintained)	3.24	.43	3.24	.43	3.24	.43	Adequate
16	Availability of wash-basins	3.58	.50	3.72	.45	3.65	.48	Adequate
17	Availability of first aid-box	3.79	.41	3.84	.37	3.82	.39	Adequate
18	Availability of sick bay with beds	3.70	.46	3.83	.38	3.76	.43	Adequate
19	Availability of mattress	2.93	.25	2.96	.27	2.95	.26	Adequate
20	Availability of fire-extinguisher	2.98	.20	2.95	.25	2.96	.23	Adequate
21	Availability of evacuation rules in events of fire or other emergency	3.07	.25	3.07	.25	3.07	.25	Adequate
22	Availability of refuse disposal facilities	3.15	.36	3.05	.36	3.10	.36	Adequate
23	Periodic safety trainings organised for staff	3.07	.25	3.02	.34	3.04	.30	Adequate
24	Apparatus and equipment properly kept	2.93	.25	2.81	.44	2.87	.36	Adequate
25	Identification of pupils collectors after school	2.98	.22	2.83	.44	2.91	.35	Adequate
26	Proper storage of cleaning agents/ disinfectants	3.07	.25	3.05	.22	3.06	.23	Adequate
27	Regular supervision of pupils during lunch	3.07	.25	2.87	.45	2.97	.38	Adequate
28	Availability of play ground	3.16	.37	3.00	.34	3.08	.36	Adequate
29	Adequate playground	2.93	.25	2.94	.27	2.94	.26	Adequate
30	Adequate playing space for a child	2.98	.20	2.98	.33	2.98	.27	Adequate
Cumulative						3.23	0.34	

Table 4.3 revealed the perception of care-givers on the present condition of safety precaution measures at day-care centers in Gombe State. The cumulative mean responses of all the items were 3.23 which is higher than the decision mean of 2.50 with the standard deviation value of 0.34 implying that their responses were significant. Specifically, majority accepted that toilets are in good condition as this item attracted the highest mean response of 3.96 and standard deviation of 0.19. This implies that safety precaution measures at day-care centers in Gombe State are presently in a good condition.

Research Question Three

What are the care-givers on the availability of safety precaution measures at the Day-Care Centers?

Table 4.4 Care-givers on Availability of Safety Precaution Measures at the Day-Care Centers in Gombe State

S/N		Care-givers		Parents		Total		Decision
		Mean	SD	Mean	SD	Mean	SD	
		N=120		N=120		N=240		
31	Hygiene Facilities							
	a. Toilet	3.78	.42	3.67	.63	3.72	.53	Available
	b. Water	2.98	.22	2.89	.34	2.94	.29	Available
	c. Wash hand basin	3.58	.50	3.72	.45	3.65	.48	Available
32	Availability of Fire extinguisher	2.98	.20	2.95	.25	2.96	.23	Available
33	Health Care facilities							Available
	a. First Aid box	3.79	.41	3.84	.37	3.82	.39	Available
	b. Mattresses	2.93	.25	2.96	.27	2.95	.26	Available
	c. Sick bay	3.70	.46	3.83	.38	3.76	.43	Available
	d. Refuse disposal	3.15	.36	3.05	.36	3.10	.36	Available

34	Play ground							Available
	a. Playing space for child	3.16	.37	3.00	.34	3.08	.36	Available
	b. Play facilities	3.07	.25	3.03	.35	3.05	.31	Available
	c. Playground free from harmful objects	3.07	.25	3.08	.26	3.07	.26	Available
34	Good lighting system	3.07	.25	3.00	.29	3.03	.27	Available
Cumulative						3.26	.35	

Table 4.4 revealed the perception of care-givers on availability of safety precaution measures at the day-care centers in Gombe State Senatorial Zones. The cumulative mean responses of all the items were 3.26 which is higher than the decision mean of 2.50 with the standard deviation value of 0.35 implying that their responses were significant. Specifically, majority accepted that first aid boxes are adequate in the day care centers in Gombe state as this item attracted the highest mean response of 3.82 and standard deviation of 0.39. This implies that safety precaution measures at day-care centers in Gombe State are available as indicated by the cumulative mean and standard deviation from care-givers and parents in the study area.

Research Question Four

What are the care-givers and parents' opinion of the adequacy of safety precaution measures at the Day-Care Centers?

Table 4.5 Perception of Care-givers and Parents on Adequacy of Safety Precaution Measures at the Day-Care Centers in Gombe State

S/N	Care-givers		Parents		Total		Decision
	Mean	SD	Mean	SD	Mean	SD	
		N=120		N=120		N=240	

35	Hygiene Facilities								
	a. Toilet	3.78	.42	3.67	.63	3.72	.53	Accepted	
	b. Water	3.07	.25	3.04	.20	3.05	.23	Accepted	
	c. Wash hand basin	3.28	.50	3.42	.45	3.35	.48	Accepted	
36	Adequacy of Fire extinguisher	3.07	.25	3.07	.25	3.07	.25	Accepted	
37	Health Care facilities							Accepted	
	a. First Aid box	3.43	.39	3.75	.37	3.59	.35	Accepted	
	b. Mattresses	2.93	.25	2.81	.44	2.87	.36	Accepted	
	c. Sick bay	3.70	.46	3.83	.38	3.76	.43	Accepted	
38	Play ground							Accepted	
	a. Playing space for child	2.98	.20	2.98	.33	2.98	.27	Accepted	
	b. Play facilities	2.93	.25	2.94	.27	2.94	.26	Accepted	
	c. Adequate play facilities	3.17	.37	2.97	.37	3.07	.38	Accepted	
39	Good lighting system	3.17	.37	3.01	.33	3.09	.36	Accepted	
	Cumulative					3.23	0.35		

Table 4.5 revealed the perception of care-givers and parents on adequacy of safety precaution measures at the day-care centers in Gombe State Senatorial Zones. The cumulative mean responses of all the items were 3.23 which is higher than the decision mean of 2.50 with the standard deviation value of 0.35 implying that their responses were substantial. Explicitly, majority accepted that sick bays are adequate in the day care centers in Gombe state as this item attracted the highest mean response of 3.76 and standard

deviation of 0.43. This implies that safety precaution measures at day-care centers in Gombe State are adequate as indicated by the cumulative mean and standard deviation from caregivers and parents in the study area.

Research Question Five

To what extent does the educational attainment of proprietors of the Day-care centers influence the implementation of safety precaution in Day-care centers?

Table 4.6: Educational Attainment of proprietors of the Day-care centers and the safety precaution put in place

S/N	Item	GOMBE SOUTH N=80		GOMBE CENTRAL N=80		GOMBE NORTH N=80		Total N=240		Decision
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
40	Lockers are properly mended	2.90	.69	2.78	.66	2.74	.72	2.80	.69	Moderate Extent
41	Regular placement of play and play materials	3.04	.58	2.85	.62	2.79	.74	2.89	.66	Moderate Extent
42	Staff are well train	3.00	.00	2.78	.42	3.03	.22	2.93	.30	Moderate Extent
43	Fence are well maintain to prevent outsiders from intruding	3.01	.11	2.83	.38	3.04	.25	2.96	.29	Moderate Extent
44	Proprietors with high Educational Qualification are more concerned about safety precaution	3.04	.19	3.00	.00	3.08	.27	3.04	.19	High Extent
45	Proprietors with high Educational Qualification have provision for retraining of staff on safety measures	3.04	.19	2.90	.30	3.04	.19	2.99	.24	Moderate Extent
46	Proprietors with low Educational Qualification put in place safety devices that are	2.89	.67	2.84	.77	2.74	.92	2.82	.80	Moderate Extent

of inferior quality

47	Proprietors with high Educational Qualification regularly share information with parents about safety implementation	2.95	.88	2.96	.83	2.96	.79	2.96	.83	Moderate Extent
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Table 4.6 shows the Mean score response and standard deviation on the educational qualification of proprietors of the Day-care centers and the safety precaution put in place. The result indicated that there was high extent to which proprietors with high Educational Qualification shows concerned about safety precaution in all the areas, whereas the statement that proprietors with high Educational Qualification have provision for retraining of staff on safety measures, proprietors with low Educational Qualification put in place safety devices that are of inferior quality and proprietors with high Educational Qualification regularly share information with parents about safety implementation were responded with moderately extent. Opinion Care givers on the Educational qualification of proprietors of the Day-care centers and the safety precaution put in place was show in table 4.6. In all the items tested only item 44 and 46 responded with high extent, all other item responded with moderately extent in both care givers and parents respectively.

Research Question Six

What extent is the implementation of safety precaution by public and private Day-care centers in Gombe State?

Table 4.7: Utilization of Safety Precaution by Public and Private Day-Care Centers in Gombe State

S/N		Public DCC N=120		Private DCC N=120		Total N= 240		Decision
		Mean	S.D	Mean	S.D	Mean	S.D	
48	Playground free from harmful objects	3.13	.35	3.07	.25	3.10	.30	Yes
49	Availability of play facilities	3.03	.49	2.97	.41	3.00	.45	Yes
50	Adequate play facilities	2.93	.52	2.83	.38	2.88	.45	Yes
51	Facilities are maintained	2.60	.50	2.67	.48	2.63	.49	Yes
52	Availability of running water	2.73	.52	2.70	.47	2.72	.49	Yes
53	Adequacy of running water	3.10	.31	3.00	.00	3.05	.22	Yes
54	Availability of light	3.00	.45	2.90	.31	2.95	.39	Yes
55	Adequacy of light	2.97	.49	2.97	.32	2.97	.41	Yes
56	Availability of schools bus	2.73	.45	2.87	.57	2.80	.51	Yes
57	Adequacy of school bus	2.87	.43	2.90	.55	2.88	.49	Yes
58	Vehicles used by the center for transporting children are registered, roadworthy and appropriately insured	3.10	.31	3.10	.31	3.10	.30	Yes
Cumulative						2.92	0.41	

Table 4.7 revealed the extent of utilization of safety precaution by public and private day-care centers in Gombe State. The cumulative mean responses of all the items were 2.92 which is higher than the decision mean of 2.50 with the standard deviation value of 0.41 implying that their responses were important. Explicitly, majority accepted that play grounds are free from harmful object and vehicles used by the center for transporting children are registered, roadworthy and appropriately insured in both private and public day care centers in Gombe state as these items attracted the highest mean response of 3.10 and standard

deviation of 0.30 respectively. This is an indication that the safety precaution measures in day care centers in Gombe state are well utilized.

4.3 Testing of Hypotheses

Hypothesis One

There is no significant difference between the child safety measures in public and private day-care centers in Gombe State

Table 4.8: t-test for Difference between the Child Safety Measures in Public and Private Day-care Centers in Gombe State

	N	Mean	Std. Dev.	df	T _{cal}	T _{crit}	p-value	Remark
Public Day-care Centers	120	3.49	4.97	238	2.52	1.984	.03	S
Private Day-care centers	120	3.40	4.96					

Significant at $P < .05$

Table 4.8 revealed that the t-calculated (2.52) is greater than t-critical (1.984) with p-value 0.03 less than 0.05 level of significance. The null hypothesis, which states that there is no significant difference between the child safety measures in public and private day-care centers in Gombe State, is therefore rejected. This implies that a significant difference exist between the safety measures in public and private day-care centers in Gombe State.

Hypothesis Two

There is no significant relationship between availability and adequacy of safety precaution in Day-care centers.

Table 4.9: Correlation for Relationship between Availability and Adequacy of Safety Precaution in Day-care Centers in Gombe State

Variables	N	Mean	Std.Dev.	df	r-cal	r-crit	P Value	Remark
Availability of Safety Precaution	120	3.05	0.78	238	0.55	.195	0.03	

Adequacy of Safety Precaution	120	2.99	0.82	Significant
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r-crit = (.195), P≤0.05

Result of data used to test null hypothesis three in Table 4.9 revealed a mean score of 3.05 with standard deviation of 0.784 for availability of safety precautions against a mean of 2.99 with standard deviation of 0.82 for adequacy of safety precaution. The calculated r value was greater than the critical r value ($0.55 > 0.195$) at 0.05 alpha level of significance. The result revealed the existence of a significant relationship between availability of safety precaution and adequacy of safety precaution in day-care centers in Gombe State. Based on the result, the null hypothesis which states that there is no significant relationship between availability and adequacy of safety precautions in Day-care centers in Gombe State, is therefore rejected.

Hypothesis Three

There is no significant difference in the utilization of safety precaution between public and private Day-care centers in Gombe State.

Table 4.10: t-tests for Difference in the Implementation of Safety Precautions between Public and Private Day-care centers in Gombe State

	N	Mean	Std. Dev.	dF	T _{cal}	T _{crit}	p-value	Remark
Public day-care centers	120	3.01	2.96	238	3.16	1.98	0.01	Significant
Private day-care centers	120	3.03	2.60					

Not Significant at P > .05

Table 4.10 revealed that the t-calculated (3.16) is greater than t-critical (1.98) at 0.05 level of significance. The null hypothesis which states that there is no significant difference in the implementation of safety precaution between public and private Day-care centers in Gombe State is therefore rejected. This implies that there exists a significant difference

between the utilization of safety precaution between public and private day-care centers in Gombe State.

4.4 Summary of Major Findings

The major findings were:-

- i. The result of research question one revealed that good toilet system, spacious and ventilated classrooms, and accident free environment are among child safety measures in public and private day-care centres and null hypothesis further indicated that significant difference exist between the safety measures in public and private day-care centers in Gombe State ($p = 0.03$).
- ii. It was revealed that safety precaution measures at day-care centres are in good conditions (Cum. Mean = 3.23).
- iii. It was revealed by the research question that safety precaution measures at day-care centres are available. It was also indicated that significant relationship exists between availability and adequacy of safety precaution in day-care centers in Gombe State. Proprietors with high educational qualification are more concerned about safety, precaution in public and private day care centres in Gombe State ($p = 0.03$).
- iv. The result also revealed that safety precaution measures at day-care centres in Gombe state are adequate.
- v. The extent at which educational attainment of proprietors of the Day-care centers influence the implementation of safety precaution in Day-care centers is moderate.
- vi. The result revealed that safety precaution measures in day-care centres are well implemented. Also a significant difference exists between the implementation of

safety precaution between public and private day-care centers in Gombe State ($p = 0.01$).

4.5 Discussion

Assessment of availability and implementation of safety precautions in public and private day-care centers in Gombe State, Nigeria indicated that there was high extent to which Classroom meets Federal Government provision of (7m by 4m by 3m) and the teacher/pupil ratio of 1:20. However, there was moderate extent for the suitable topography of school environment and the availability of proper drainage system in all the public and private day care centers in the state. These findings agree with that of Early Childhood Development and Education (ECDE) 1999 and the African International Conference with the objective of raising public awareness and advocate for ECDE and Early Child Care and Education (ECCE) reported by (Ekaete, 2004). The extent to which schools are located in a conducive environment, accessibility, and presence of toilets and free from hazards was highly moderate with proper fencing but however the suitable topography of school environment and the availability of proper drainage and toilet systems in both public and private DCCs were moderately extent. Generally these were the facilities that aids both teaching and learning as suggested by (Natora and Mark 2009).

The opinion of care givers is usually based on the expectation that their children have the right to education as stipulated in the UN's Universal Declaration of Human Rights (1948). Article 26 which states that everyone has the right to education and that education should be free at least in the elementary and fundamental stages so that the child will be developed in his human personality as ascribed by (UN, 1948:10). The results in the opinion

of care givers and parents moderately indicated similar view. The mean score response and standard deviation on the availability and adequacy of safety precaution measures in Day-Care Centers in Gombe State shows that there is very high extent for toilets gender friendly nature. However, there was high extent for the adequacy of toilets in all location and that the conditions of toilets were properly maintained. The availability of wash-basins, first aid-box and sick bay with beds were also highly extent.

The location of either public or private DCC should be a place that is acceptable to the community (home, community buildings such as civic centers, churches, mosques, existing schools etc) should be within working distance from home (maximum of 2km), it should also be safe and secured environment that is free from chemical, excessive noise and traffic as reported by (Ihuoma 2008), who emphasized that the physical, emotional, social and academic needs of children in DCCs are met through provision of safe structure, adequate sanitary facilities, a balanced visual environment, appropriate thermal environment, and sufficient shelter space for play. The child's emotional needs are met by creating pleasant surroundings, a friendly atmosphere, and an inspiring environment.

The study generally agrees that prevention of Child injury in DCCs can be achieved through safety management, emergency evacuation and home maintenance. However the plumbing fixtures and appliances, play equipment were to some extent moderately used and implemented. The study however identifies that poor flooring and open fires, electrical and other heaters such as sharp, pointed and jagged objects can caused serious injuries to pupils during play time or class room activity as suggested by (Kostelnik, and Sanderman 1998; Peng 2010). Rentzou's (2010) study examines the significant growth of interest in ensuring that childcare provision for children is of a high quality, this present study also affirm that

there was high extent to which safety precaution at the Day-Care Centers in Gombe State are implemented in both public and private centers see Appendix III.

The study on the opinion of care givers which seeks to determine whether center-based and family-based child care services differ with respect to safety measures, as measured by the Educative Quality Observation Scales (EQOS) shows a similar view as stated by (Charron 2000) and (Bigraset *al* 2000) which were both comparative studies of safety measures in Center-based and family-based child care delivery. The educational qualification of proprietors of the Day-care centers and the safety precaution put in place was found to be moderately and highly extend in both public and private day care centers in Gombe state. This is in line with the reports of (Cashmore and Jones 2008) which studied the provision of safety and physical activities in public and private day care centers with and without qualified proprietors See Appendix IV, V and VI.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The chapter is presented under the following subheadings:

- 5.1 Summary
- 5.2 Conclusion
- 5.3 Recommendations
- 5.4 Suggestions for Further Studies

5.1 Summary

The study was carried out to assess the availability and implementation of safety precautions in public and private day-care centers in Gombe State, Nigeria. In order to achieve the objective of the study, six specific objectives were used which include; to identify child safety measures in the Public and Private Day-care centers in Gombe State. In line with these objectives, research questions were raised which include; What are the child safety measures in the Public and Private Day-Care Centers in Gombe State? Null hypotheses were developed which include; There is no significant difference between the child safety measures in public and private day-care centres in Gombe State, Nigeria.

Day-Care Center (DCC) is the center where care is given to a child during the day by a person other than the child's parent or legal guardian, typically someone outside the child's immediate family. Thus, this informed the choice of the researcher to undertake a study to assess the availability and the implementation of safety precaution in Public and Private Day-Care Centres, which on its own is a measure of quality in child care services.

Concepts of Home Economics and entrepreneurship were reviewed, other reviews included philosophy of pre-primary education, day-care education in Nigeria, implementation of safety precaution policy, importance of child safety in DCCs, prevention of child injury in DCCs, availability of safety devices as well as review of empirical studies.

The study adopted a descriptive survey design. In order to achieve the objectives of the study, five objectives, five research questions and five null hypotheses were formulated. A total of 240 respondents were sampled from the total population of 13837 and 880 for parents and caregivers. Sixty day care centres were also sampled from the population of 340 day care centres across the three senatorial zones. A self-structured questionnaire was used to collect data from the respondents. The data collected were presented in tables and were analyzed descriptively using mean and standard deviations to answer the research questions while t-test and PPMC were used to test the null hypotheses formulated for the study at 0.05 levels of significance. The result of the study revealed that there was a significant difference in the safety measures in day care centers in Gombe State, Nigeria.

The study revealed that:

- i. The result of research question one revealed that good toilet system, spacious and ventilated classrooms, and accident free environment are among child safety measures in public and private day-care centres and null hypothesis further indicated that significant difference exist between the safety measures in public and private day-care centers in Gombe State ($p = 0.03$).
- ii. It was revealed that safety precaution measures at day-care centres are in good conditions (Cum. Mean = 3.23).

- iii. It was revealed by the research question that safety precaution measures at day-care centres are available. It was also indicated that significant relationship exists between availability and adequacy of safety precautions in day-care centers in Gombe State. Proprietors with high educational qualification are more concerned about safety, precaution in public and private day care centres in Gombe State ($p = 0.03$).
- iv. The result also revealed that safety precaution measures at day-care centres in Gombe state are adequate.
- v. The extent at which educational attainment of proprietors of the Day-care centers influence the implementation of safety precaution in Day-care centers is moderate.
- vi. The result revealed that safety precaution measures in day-care centres are well implemented. Also a significant difference exists between the implementation of safety precaution between public and private day-care centers in Gombe State ($p = 0.01$).

5.2 Contributions to Knowledge

- i, There is significant difference in child safety precaution measures between public and private day-care centres Gombe State ($p = 0.03$).
- ii, Proprietors with high educational qualification are more concerned about safety, precaution in public and private day care centres in Gombe State ($p = 0.03$).
- iii, There is significant difference between the implementation of safety precaution between public and private day-care centers in Gombe State ($p = 0.01$).

5.3 Conclusions

Based on the major findings it was concluded that child safety precaution measures are adequately available in good condition and well implemented in public and private day-care

centres. The implication of this finding is that children would have good care and safety during the day time while their parents are in work place.

5.4 Recommendations

Based on the conclusion the following recommendations are made

- i. Gombe State Ministry of Education should make provision of adequate security and fencing of public day care centres and the Ministry of Education should make it mandatory for all private day care proprietors to conform to Health Safety and Environmental Standard (HSE) as this will provide proper safety and mutual respect amongst pupils in public and private day care centres in Gombe State.
- ii. Federal Ministry of Education should provide monitoring committee to enforce the policies on the provision of safety measures set by the United Nations International Children Emergency Fund (UNICEF) and Nigerian Educational Research and Development Council (NERDC) on both public and private day care centres.
- iii. Inspection officers from the Ministry of Education, Local Government Education Authority and parents should regularly visit the day care centres in various locations to assess the availability, adequacy and implementation of these safety precautions in the schools.
- iv. License should only be given to qualified proprietors that possess the required safety precautionary measures in their centres and can train care givers on safety measures to be carried out in the centre.
- v. Gombe State Ministry of Education proprietors from private day care centres should employ more qualified care givers for proper utilization and implementation safety measures in public and private day care centres in Gombe State.

5.5 Suggestions for Further Studies

Further research should be conducted in other states or other geographical location in the country with different themes.

- i. The effect of insurgency on the security of children in the day-care centers in Gombe state.
- ii. Factors influencing the implementation of safety precaution measures in the pre-school children centres in GombeState.

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APPENDIX I
Questionnaire on Availability and Implementation of Safety Precautions in Day Care Centre (AISPDC)

Department of Vocational and Technical Education,
Faculty of Education,
Ahmadu Bello University,
Zaria

Dear Respondent,

REQUEST TO COMPLETE QUESTIONNAIRE

I am a postgraduate student of the above institution conducting a research on assessment of availability and implementation of safety precaution in public and private day care centers in Gombe. Please, assist by expressing your honest opinion by providing answers to the following questions and statements.

You are assured that all information given shall be kept strict and confidential. I therefore solicit for your maximum cooperation and contributions to make this study a success.

Thank you for your anticipated cooperation.

Yours Sincerely,

Rukayya Umar Abdulkadir

Questionnaire
Availability and Implementation of Safety Precautions in Day Care Centers
(AISPDC)

Section A: Bio-data

1. Name of Day Care Center:
2. L.G.A of the Centre:
3. Occupation:
4. Sex:

SECTION B: Observational Index on Availability and Implementation of Safety Precaution in Day Care Centres (AISPDC)

Please tick (✓) against the appropriate column that corresponds with your choice.

Key: VHE (Very High Extent), HE (High Extent), ME (Moderate Extent), LE (Low Extent)

Part I

Child safety measures at the day care centers in Gombe State					
S/No.	Item	VHE	HE	ME	LE
1	Classroom size meets Government provision of 7m by 43 by 3m				
2	Teacher/pupil ratio meet Government provision 1:20				
3	Classroom are well ventilated				
4	Seats suitable to pupil age				
5	Side lockers are provided for classroom apparatus				
6	School are locked in conducive environment				
7	Schools are properly fenced				
8	Suitable topography of school environment				
9	Schools are hazard free (absence of fruits, position of electric poles)				
10	Toilets are gender friendly				
11	Periodic safety training are organized by staff				
12	Apparatus and equipment properly kept				
13	Identification of pupil collectors after school				

PART II**PART IIa: AVAILABILITY OF SAFETY MEASURES IN DAY CARE CENTRES
IN GOMBE**

S/N		VHE	HE	ME	LE
18	Hygiene Facilities				
	d. Toilet				
	e. Water				
	f. Wash hand basin				
19	Availability of Fire extinguisher				
20	Health Care facilities				
	e. First Aid box				
	f. Mattresses				
	g. Sick bay				
	h. Refuse disposal				
21	Play ground				
	d. Playing space for child				
	e. Play facilities				
	f. Playground free from harmful objects				
22	Ventilation facilities				

23	Good lighting system				
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PART IIb: ADEQUACY OF SAFETY MEASURES IN DAY CARE CENTRES IN GOMBE

Key: VA: Very Adequate; HA: Highly Adequate; MA: Moderately Adequate; NA: Not Adequate

S/N		VA	HA	MA	NA
24	Hygiene Facilities				
	a. Toilet				
	b. Water				
	c. Wash hand basin				
25	Fire extinguisher				
26	Adequacy of Health Care facilities				
	a. First Aid box				
	b. Mattresses				
	c. Sick bay				
	d. Refuse disposal				
27	Play ground				
	a. Playing space for child				
	b. Play facilities				
28	Ventilation facilities				

29	Good lighting system				

Part III

Present Condition of the Implementation of Safety Precautions at the Day Care Centres in Gombe

S/N	Item	VHE	HE	ME	LE
30	Classroom are well floored and maintained				
31	Walls are plastered				
32	Electrical fittings are maintained				
33	Lockers are properly mended				
34	Regular replacement of play and play materials				
35	Staff are well trained				
36	Fence are well maintained to prevent outsiders from intruding				

Part IV

Educational Attainment of Proprietors of Day Care Centers

S/N	Item	VHE	HE	ME	LE
37	Proprietor with high educational qualification are more concerned about safety precautions				
38	Proprietor with high educational qualification have provision for retraining staff on safety measures				
48	Proprietor with low educational qualification put in place safety devices that are of inferior quality				

38	Proprietor with high qualification regularly share information with parent about safety implementation				
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APPENDIX II
Output for Test of Hypotheses

Group Statistics

Group	N	Mean	Std. Deviation	Std. Error Mean
Public day care center	120	3.491	4.967	1.260
Private day care center	120	3.403	4.960	.542

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.091	.763	2.52	238	.03	.	1.370	-3.460	1.938
Equal variances not assumed			2.52	54.412	.041	-.761	1.371	-3.510	1.988

Group Statistics

Strategy	N	Mean	Std. Deviation	Std. Error Mean
Care-givers	120	3.24	4.961	.784
Parents	120	3.21	4.597	.313

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.668	.415	1.2401	238	.231	-4.230	.801	-5.808	-2.652
Equal variances not assumed			1.2001	48.149	.231	-4.230	.845	-5.924	-2.535

Descriptive Statistics

	Mean	Std. Deviation	N
Availability	3.05	.78	240
Adequacy	2.99	.82	240

Correlations^a

		Availability	Adequacy
Availability	Pearson Correlation	1	.55
	Sig. (2-tailed)		.03
Adequacy	Pearson Correlation	.55	1
	Sig. (2-tailed)	.03	

a. Listwise N=240

Descriptive Statistics

	Mean	Std. Deviation	N
Educational Qualification	2.97	.68	240
Implementation of Safety Measures	2.89	.62	240

Correlations^a

		Educational Qualification	Implementati on of Safety Measures
Educational Qualification	Pearson Correlation	1	.61
	Sig. (2-tailed)		.05
Implementation of Safety Measures	Pearson Correlation	.61	1
	Sig. (2-tailed)	.05	

a. Listwise N=240